24-Jan-24
Click on Excel link above for all other years' tables.

## Tax Year 2024 [Typically Filed in 2025] Individual Income Tax Rates, Standard Deductions, Personal Exemptions, and Filing Thresholds

If your filing status is Single

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 11,600$ |  |
| $\$ 11,600$ | $\$ 47,150$ | $10 \%$ |
| $\$ 47,150$ | $\$ 100,525$ | $12 \%$ |
| $\$ 100,525$ | $\$ 191,950$ | $22 \%$ |
| $\$ 191,950$ | $\$ 243,725$ | $24 \%$ |
| $\$ 243,725$ | $\$ 609,350$ | $32 \%$ |
| $\$ 609,350$ | and over | $35 \%$ |
|  |  | $37 \%$ |

If your filing status is Head of Household

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 16,550$ |  |
| $\$ 16,550$ | $\$ 63,100$ | $10 \%$ |
| $\$ 63,100$ | $\$ 100,500$ | $12 \%$ |
| $\$ 100,500$ | $\$ 191,950$ | $22 \%$ |
| $\$ 191,950$ | $\$ 243,700$ | $24 \%$ |
| $\$ 243,700$ | $\$ 609,350$ | $32 \%$ |
| $\$ 609,350$ | and over | $35 \%$ |

Standard Deduction

|  | Standard Amount |  |
| :---: | :---: | :---: |
| Single | \$14,600 |  |
| Married Filing Jointly or | \$29,200 |  |
| Head of Household | \$21,900 |  |
| Married Filing Separately | \$14,600 |  |
|  | Filing Status | Additional Amount |
| Blind or age 65 or older | Single or Head of Household | \$1,950 |
|  | Others | \$1,550 |
| Filing Threshold |  |  |
|  | Age | Gross Income |
| Single | under 65 | \$14,600 |
|  | 65 or older | \$16,550 |
|  | under 65 (both spouses) | \$29,200 |
| Married Filing Jointly | 65 or older (one spouse) | \$30,750 |
|  | 65 or older (both spouses) | \$32,300 |
| Qualifying Widow(er) | under 65 | \$29,200 |
|  | 65 or older | \$30,750 |
| Head of Household | under 65 | \$21,900 |
|  | 65 or older | \$23,850 |
| Married Filing Separately | any age | \$5 |

Source: IRS Revenue Procedure 23-34, accessed January 24, 2024.
https://www.irs.gov/irb/2023-48 IRB\#REV-PROC-2023-34

If your filing status is Married Filing Jointly or Qualifying Widow(er)

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 23,200$ |  |
| $\$ 23,200$ | $\$ 94,300$ | $10 \%$ |
| $\$ 94,300$ | $\$ 201,050$ | $12 \%$ |
| $\$ 201,050$ | $\$ 383,900$ | $22 \%$ |
| $\$ 383,900$ | $\$ 487,450$ | $24 \%$ |
| $\$ 487,450$ | $\$ 731,200$ | $32 \%$ |
| $\$ 731,200$ | and over | $35 \%$ |

If your filing status is Married Filing Separately

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 11,600$ | $10 \%$ |
| $\$ 11,600$ | $\$ 47,150$ | $12 \%$ |
| $\$ 47,150$ | $\$ 100,525$ | $22 \%$ |
| $\$ 100,525$ | $\$ 191,950$ | $24 \%$ |
| $\$ 191,950$ | $\$ 243,725$ | $32 \%$ |
| $\$ 243,725$ | $\$ 365,600$ | $35 \%$ |
| $\$ 365,600$ | and over | $37 \%$ |

Threshold for Refundable Child Tax Credit

|  | Earned Income |
| :--- | ---: |
| All filers | $\$ 2,500$ |

Personal Exemption
Personal Exemption

All filers \$0

24-Jan-24
Click on Excel link above for all other years' tables.

## Tax Year 2023 [Typically Filed in 2024] Individual Income Tax Rates, Standard Deductions, Personal Exemptions, and Filing Thresholds

If your filing status is Single

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 11,000$ |  |
| $\$ 11,000$ | $\$ 44,725$ | $10 \%$ |
| $\$ 44,725$ | $\$ 95,375$ | $12 \%$ |
| $\$ 95,375$ | $\$ 182,100$ | $22 \%$ |
| $\$ 182,100$ | $\$ 231,250$ | $24 \%$ |
| $\$ 231,250$ | $\$ 578,125$ | $32 \%$ |
| $\$ 578,125$ | and over | $35 \%$ |

If your filing status is Head of Household

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 15,700$ |  |
| $\$ 15,700$ | $\$ 59,850$ | $10 \%$ |
| $\$ 59,850$ | $\$ 95,350$ | $12 \%$ |
| $\$ 95,350$ | $\$ 182,100$ | $22 \%$ |
| $\$ 182,100$ | $\$ 231,250$ | $24 \%$ |
| $\$ 231,250$ | $\$ 578,100$ | $32 \%$ |
| $\$ 578,100$ | and over | $35 \%$ |

Standard Deduction

|  | Standard Amount |  |
| :---: | :---: | :---: |
| Single | \$13,850 |  |
| Married Filing Jointly or | \$27,700 |  |
| Head of Household | \$20,800 |  |
| Married Filing Separately | \$13,850 |  |
|  | Filing Status | Additional Amount |
| Blind or age 65 or older | Single or Head of Household | \$1,850 |
|  | Others | \$1,500 |
| Filing Threshold |  |  |
|  | Age | Gross Income |
| Single | under 65 | \$13,850 |
|  | 65 or older | \$15,700 |
|  | under 65 (both spouses) | \$27,700 |
| Married Filing Jointly | 65 or older (one spouse) | \$29,200 |
|  | 65 or older (both spouses) | \$30,700 |
| Qualifying Widow(er) | under 65 | \$27,700 |
|  | 65 or older | \$29,200 |
| Head of Household | under 65 | \$20,800 |
|  | 65 or older | \$22,650 |
| Married Filing Separately | any age | \$5 |

Source: IRS Revenue Procedure 22-38, accessed January 24, 2024.
https://www.irs.gov/pub/irs-drop/rp-22-38.pdf

If your filing status is Married Filing Jointly or Qualifying Widow(er)

| Taxable Income |  | Marginal Rate |
| :---: | :---: | :---: |
| Over --- | But not over --- |  |
| \$0 | \$22,000 | 10\% |
| \$22,000 | \$89,450 | 12\% |
| \$89,450 | \$190,750 | 22\% |
| \$190,750 | \$364,200 | 24\% |
| \$364,200 | \$462,500 | 32\% |
| \$462,500 | \$693,750 | 35\% |
| \$693,750 | and over | 37\% |

If your filing status is Married Filing Separately

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 11,000$ | $10 \%$ |
| $\$ 11,000$ | $\$ 44,725$ | $12 \%$ |
| $\$ 44,725$ | $\$ 95,375$ | $22 \%$ |
| $\$ 95,375$ | $\$ 182,100$ | $24 \%$ |
| $\$ 182,100$ | $\$ 231,250$ | $32 \%$ |
| $\$ 231,250$ | $\$ 346,875$ | $35 \%$ |
| $\$ 346,875$ | and over | $37 \%$ |

Threshold for Refundable Child Tax Credit

|  | Earned Income |
| :---: | ---: |
| All filers | $\$ 2,500$ |

Personal Exemption
Personal Exemption

All filers \$0

25-Jan-22
Click on Excel link above for all other years' tables.
Tax Year 2022 Individual Income Tax Rates, Standard Deductions, Personal Exemptions, and Filing Thresholds

If your filing status is Single

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 10,275$ |  |
| $\$ 10,275$ | $\$ 41,775$ | $10 \%$ |
| $\$ 41,775$ | $\$ 89,075$ | $12 \%$ |
| $\$ 89,075$ | $\$ 170,050$ | $22 \%$ |
| $\$ 170,050$ | $\$ 215,950$ | $24 \%$ |
| $\$ 215,950$ | $\$ 539,900$ | $32 \%$ |
| $\$ 539,900$ | and over | $35 \%$ |
|  |  | $37 \%$ |

If your filing status is Head of Household

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 14,650$ | $10 \%$ |
| $\$ 14,650$ | $\$ 55,900$ | $12 \%$ |
| $\$ 55,900$ | $\$ 89,050$ | $22 \%$ |
| $\$ 89,050$ | $\$ 170,050$ | $24 \%$ |
| $\$ 170,050$ | $\$ 215,950$ | $32 \%$ |
| $\$ 215,950$ | $\$ 539,900$ | $35 \%$ |
| $\$ 539,900$ | and over | $37 \%$ |

Standard Deduction

|  | Standard Amount |  |
| :---: | :---: | :---: |
| Single | \$12,950 |  |
| Married Filing Jointly or Qualifying Widow(er) | \$25,900 |  |
| Head of Household | \$19,400 |  |
| Married Filing Separately | \$12,950 |  |
|  | Filing Status | Additional Amount |
| Blind or age 65 or older | Single or Head of Household | $\$ 1,750$ |
| Filing Threshold |  |  |
|  | Age | Gross Income |
| Single | under 65 | \$12,950 |
|  | 65 or older | \$14,700 |
|  | under 65 (both spouses) | \$25,900 |
| Married Filing Jointly | 65 or older (one spouse) | \$27,300 |
|  | 65 or older (both spouses) | \$28,700 |
| Qualifying Widow(er) | under 65 | \$25,900 |
|  | 65 or older | \$27,300 |
| Head of Household | under 65 | \$19,400 |
|  | 65 or older | \$21,150 |
| Married Filing Separately | any age | \$5 |

Source: IRS Revenue Procedure 21-45, accessed January 25, 2022.
https://www.irs.gov/pub/irs-drop/rp-21-45.pdf

If your filing status is Married Filing Jointly or Qualifying Widow(er)

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 20,550$ |  |
| $\$ 20,550$ | $\$ 83,550$ | $10 \%$ |
| $\$ 83,550$ | $\$ 178,150$ | $12 \%$ |
| $\$ 178,150$ | $\$ 340,100$ | $22 \%$ |
| $\$ 340,100$ | $\$ 431,900$ | $24 \%$ |
| $\$ 431,900$ | $\$ 647,850$ | $32 \%$ |
| $\$ 647,850$ | and over | $35 \%$ |
|  |  | $37 \%$ |

If your filing status is Married Filing Separately

| Taxable Income |  |  |
| ---: | ---: | ---: |
| Over --- | But not <br> over --- | Marginal Rate |
| $\$ 0$ | $\$ 10,275$ |  |
| $\$ 10,275$ | $\$ 41,775$ | $10 \%$ |
| $\$ 41,775$ | $\$ 89,075$ | $12 \%$ |
| $\$ 89,075$ | $\$ 170,050$ | $22 \%$ |
| $\$ 170,050$ | $\$ 215,950$ | $24 \%$ |
| $\$ 215,950$ | $\$ 323,925$ | $32 \%$ |
| $\$ 323,925$ | and over | $35 \%$ |

Threshold for Refundable Child Tax Credit

|  | Earned Income |
| :---: | ---: |
| All filers | $\$ 2,500$ |

Personal Exemption
$\xlongequal{\text { Personal Exemption }}$

## Tax Year 2021 Individual Income Tax Rates, Standard Deductions, Personal Exemptions, and Filing Thresholds

| If your filing status is Single |  |  |
| ---: | ---: | ---: |
| Taxable Income |  |  |
| Over --- <br>  <br> over --- |  | Marginal Rate |
| $\$ 0$ | $\$ 9,950$ | $10 \%$ |
| $\$ 9,950$ | $\$ 40,525$ | $12 \%$ |
| $\$ 40,525$ | $\$ 86,375$ | $22 \%$ |
| $\$ 86,375$ | $\$ 164,925$ | $24 \%$ |
| $\$ 164,925$ | $\$ 209,425$ | $32 \%$ |
| $\$ 209,425$ | $\$ 523,600$ | $35 \%$ |
| $\$ 523,600$ | and over | $37 \%$ |


| If your filing status is Head of Household |  |  |
| ---: | :---: | ---: |
| Taxable Income |  |  |
| Over --- | But not |  |
| over --- | Marginal Rate |  |
| $\$ 0$ | $\$ 14,200$ | $10 \%$ |
| $\$ 14,200$ | $\$ 54,200$ | $12 \%$ |
| $\$ 54,200$ | $\$ 86,350$ | $22 \%$ |
| $\$ 86,350$ | $\$ 164,900$ | $24 \%$ |
| $\$ 164,900$ | $\$ 209,400$ | $32 \%$ |
| $\$ 209,400$ | $\$ 523,600$ | $35 \%$ |
| $\$ 523,600$ | and over | $37 \%$ |


| Standard Deduction |  |
| ---: | ---: |
| Single | Standard Amount |
| Married Filing Jointly or | $\$ 12,550$ |
| Qualifying Widow(er) | $\$ 25,100$ |
| Head of Household | $\$ 18,800$ |
| Married Filing Separately | $\$ 12,550$ |


| Threshold for Refundable Child Tax Credit |  |
| :--- | ---: |
|  | Earned Income |


| If your filing status is Married Filing Separately |  |  |
| ---: | ---: | ---: |
| Taxable Income |  |  |
| Over --- over -- - |  |  |
| $\$ 0$ | $\$ 9,950$ | Marginal Rate |
| $\$ 9,950$ | $\$ 40,525$ | $10 \%$ |
| $\$ 40,525$ | $\$ 86,375$ | $12 \%$ |
| $\$ 86,375$ | $\$ 164,925$ | $22 \%$ |
| $\$ 164,925$ | $\$ 209,425$ | $24 \%$ |
| $\$ 209,425$ | $\$ 314,150$ | $32 \%$ |
| $\$ 314,150$ | and over | $35 \%$ |
|  |  | $37 \%$ |

All filers

| Personal Exemption | Amount |
| :--- | ---: |


| Blind or age 65 or older | Single or Head of Household Others | $\begin{aligned} & \$ 1,700 \\ & \$ 1,350 \end{aligned}$ |
| :---: | :---: | :---: |
| Filing Threshold |  |  |
|  | Age | Gross Income |
| Single | under 65 | \$12,550 |
|  | 65 or older | \$14,250 |
|  | under 65 (both spouses) | \$25,100 |
| Married Filing Jointly | 65 or older (one spouse) | \$26,450 |
|  | 65 or older (both spouses) | \$27,800 |
| Qualifying Widow(er) | under 65 | \$25,100 |
|  | 65 or older | \$26,450 |
| Head of Household | under 65 | \$18,800 |
|  | 65 or older | \$20,500 |
| Married Filing Separately | any age | \$5 |

Source: IRS Revenue Procedure 20-45, accessed January 25, 2022
https://www.irs.gov/pub/irs-drop/rp-20-45.pdf

5353 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv

| wd\{deoh Lqfrph |  |  | Pdujlqdo Udwh |
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|  | ' 3 | '</; : 8 | 431 |
|  | '</; : 8 | ' $73 / 458$ | 451 |
|  | '73/458 | ';8/858 | 551 |
|  | ';8/858 | '496/633 | 571 |
|  | '496/633 | '53:/683 | 651 |
|  | '53:/683 | '84; /733 | 681 |
|  | '84;/733 | dqg ryhu | 6:1 |

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| Vwdqgdug Ghgxfwlrq |
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| ' 3 | ' $4</$ : 83 | 431 |
| ' $4</: 83$ | '; $3 / 583$ | 451 |
| ';3/583 | '4:4/383 | 551 |
| '4:4/383 | '659/933 | 571 |
| '659/933 | '747/:33 | 651 |
| '747/:33 | '955/383 | 681 |
| '955/383 | dqg ryhu | 6:1 |

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/ Ryhu 000 //// ryhu 000 Pdujlqdo Udwh

| , 3 | '</; : 8 | 431 |
| :---: | :---: | :---: |
| '</; : 8 | ' $73 / 458$ | 451 |
| ' $73 / 458$ | ';8/858 | 551 |
| ';8/858 | '496/633 | 571 |
| '496/633 | '53:/683 | 651 |
| ' 53 :/683 | '644/358 | 681 |
| '644/358 | dqg ryhu | 6: 1 |

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw
$\ldots$ Hduqhg Lqfrph

| Doo ilohuv | '5/83 |
| :--- | :--- |


| Shuvrqdo H\{hpswlrq |  |
| :--- | :--- |


| Doo ilohuv |
| :--- | :--- |



Vrxufly LUV Uhyhqxh Surfhgxuh 4<077/ dffhvvhg Pdufk 53/ 53531
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80Dxj04<

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534< & \text { Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ } \\
& \text { Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv }
\end{aligned}
$$




$\frac{\text { Li } \mid \text { rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho| }}{\text { Wd\{deoh }}$

| Wd\{deoh Lqfrph |  | jlqdo |  |
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| '6</7:8 | ';7/533 | 551 |  |
| ';7/533 | '493/:58 | 571 |  |
| '493/:58 | '537/433 | 651 |  |
| '537/433 | '639/4:8 | 681 |  |
| '639/4:8 | dqg ryhu | 6: 1 |  |

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Vlqjoh '45/53:
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Pduulhg ilolqj mrlqwo|'57/733 Khdg ri Krxvhkrog '4;/683 Pduulhg ilolqj vhsdudwho|'45/533

Ilolqj Wkuhvkrog

|  | Wkuhvkrog |  |
| :---: | :---: | ---: |
|  | Vlqjoh | $45 / 533$ |
| Khdg ri Krxvhkrog | $4 ; / 683$ |  |
| Pduulhg ilolqj mrlqwo | $57 / 733$ |  |

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| Vwdqgdug |  |
| :---: | :---: |
| Vlqjoh | '45/33 |
| Pduulhg ilolqj mrlqwo | \|'57/333 |
| Khdg ri Krxvhkrog | '4;/333 |
| Pduulhg ilolqj vhsdudwho | \|'45/333 |
| Ilolqj Wkuhvkrog |  |
| Wkuhvkrog |  |
| Vlqjoh | 45/333 |
| Khdg ri Krxvhkrog | 4;/333 |
| Pduulhg ilolqj mrlqwo | \| 57/333 |



Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|


Wkuhvkrog iru Uhixqgdeoh Fklog wd\{ Fuhglw
Wkuhvkrog

Doo krxvhkrogv '5/83

Vrxufh = Wd\{ Fxwv dqg Mrev Dfw
kwws=22grfv1krxvh1jry2eloovwklvzhhn2534:454;2FUSW0448K

534: Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Li $\begin{gathered}\text { Lrxu ilolqj vwdwxv lv Khdg ri Krxvhkrog } \\ \text { Wd\{deoh Lqfrph } \\ \text { Exw qrw } \\ \text { / Ryhu } 000 \text { //// ryhu 0@dujlqdo Udwh }\end{gathered}$.

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| '83/; 33 | '464/533 | 58 ( |
| '464/533 | '545/833 | 5; |
| '545/833 | '749/:33 | 661 |
| '749/:33 | '777/833 | 681 |
| '777/833 | dqg ryhu | $6<19$ ( |

Vwdqgdug Ghgxfwlrq

|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqjoh | '9/683 | '4/883 |
| Pduulhg il، mrlqwo\| | '45/:33 | '4/583 |
| Khdg r: Krxvhkrog | '</683 | '4/883 |
| Pduulhg il، vhsdudwho\| | '9/683 | '4/583 |

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| $\prime 3$ | $'</ 658$ | $43($ |
| ---: | ---: | ---: |
| $'</ 658$ | $\prime 6: /<83$ | $48($ |
| $' 6: /<83$ | $\prime: 9 / 883$ | $58($ |
| $': 9 / 883$ | $' 449 / 9: 8$ | $5 ;($ |
| $' 449 / 9: 8$ | $' 53 ; / 683$ | $66($ |
| $' 53 ; / 683$ | $' 568 / 683$ | $68($ |
| $' 568 / 683$ | dqg ryhu | $6<19($ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '4333 ru vxp ri '683 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq $\quad 7 / 383$
$\begin{array}{ll}\text { Wkuhvkrog iru Uhixqgdeoh } & \\ \text { Fklog Wd\{ Fuhglw } & \text { '6/333 }\end{array}$

Ilolqj Wkuhvkrog

|  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Qxpehu ri Eolqg 2 | Hoghuo | H\{hpswlrqv |
| Vlqjoh | 3 | 4 | 5 | 6 |
| Khdg ri Krxvhkrog | $43 / 733$ | $44 /<83$ | $46 / 833$ |  |
| Pduulhg ilolqj mrlqwo | $46 / 733$ | $47 /<83$ | $49 / 833$ |  |

Vrxufh= LUV Uhyhqxh Surfhugxuh/ dffhvvhg rq Ghfhpehu 49wk/ 5349
kwwsv=22zzz1luv1jry2sxe2luv0gurs2us

5349 Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


| Li $\quad$ rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog |  |
| :---: | :---: |
| Wd\{deoh Lqfrph |  |
| Exw qrw |  |
| / Ryhu 000 //// ryhu 0@Qujlqdo Udwh |  |


| ' 3 | '46/583 | 431 |
| :---: | :---: | :---: |
| ' $46 / 583$ | '83/733 | 48 ( |
| '83/733 | '463/483 | 581 |
| '463/483 | '543/;33 | 5; |
| '543/;33 | '746/683 | 661 |
| ' 746/683 | ' 774/333 | 681 |
| '774/333 | dqg ryhu | $6<19$ ( |

Vwdqgdug Ghgxfwlrq

|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqjoh | '9/633 | '4/883 |
| Pduulhg il، mrlqwo\| | '45/933 | '4/583 |
| Khdg r: Krxvhkrog | '</633 | '4/883 |
| Pduulhg il، vhsdudwho\| | '9/633 | '4/583 |



Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw qrw }}$
/ Ryhu 000 //// ryhu 0థQujlqdo Udwh

| $\prime 3$ | $'</ 5: 8$ | $43($ |
| ---: | ---: | ---: |
| $'</ 5: 8$ | $' 6: / 983$ | $48($ |
| $' 6: / 983$ | $'<4 / 483$ | $58($ |
| $'<4 / 483$ | $' 4<3 / 483$ | $5 ;($ |
| $' 4<3 / 483$ | $' 746 / 683$ | $66($ |
| $' 746 / 683$ | $' 774 / 333$ | $68($ |
| $' 774 / 333$ | dqg ryhu | $6<19($ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '4333 ru vxp ri '683 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq '7/383
$\begin{array}{ll}\text { Wkuhvkrog iru Uhixqgdeoh } & \\ \text { Fklog Wd\{ Fuhglw } & \text { '6/333 }\end{array}$

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri Eolqg 2 | Hoghuo | H\{hpswlrqv |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 4 | 5 | 6 |  |
| Vlqjoh | $43 / 683$ | $44 /<33$ | $46 / 783$ |  |  |
| Khdg ri Krxvhkrog | $46 / 683$ | $47 /<33$ | $49 / 783$ |  |  |
| Pduulhg ilolqj mrlqwo | $53 /: 33$ | $54 /<83$ | $56 / 533$ | $57 / 783$ | $58 /: 33$ |

Vrxufh= wd\{ Irxqgdwlrq/ grzqordghg Rfwrehu 48/5348 iurp=
$\underline{k w w s=22 w d\{i r x q g d w l r q 1 r u j 2 d u w l f o h 253490}$

5348 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv



| ' 3 | '46/483 | 431 |
| :---: | :---: | :---: |
| '46/483 | '83/533 | 48 ( |
| '83/533 | ' $45</ 933$ | 581 |
| ' $45</ 933$ | '53</;83 | 5; |
| '53</;83 | ' 744/833 | 661 |
| '744/833 | ' $76</ 333$ | 681 |
| ' $76</ 333$ | dqg ryhu | $6<19$ ( |

Vwdqgdug Ghgxfwlrq

| Vwdqgdug |  |  |
| :---: | :---: | :---: |
| Vlqjoh | Eolqg2Hoghuo |  |
| Pduulhg ilı <br> mrlqwo | $\prime, 45 / 933$ | $' 4 / 883$ |

Li $\quad$ rxu ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|


Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw qrw }}$
/ Ryhu 000 //// ryhu 0థQujlqdo Udwh

| $\prime 3$ | $'</ 558$ | $43($ |
| ---: | ---: | ---: |
| $'</ 558$ | $' 6: / 783$ | $48($ |
| $' 6: / 783$ | $': 8 / 933$ | $58($ |
| $': 8 / 933$ | $' 448 / 558$ | $5 ;($ |
| $' 448 / 558$ | $' 538 /: 83$ | $66($ |
| $' 538 /: 83$ | $' 565 / 758$ | $68($ |
| $' 565 / 758$ | dqg ryhu | $6<19($ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '4333 ru vxp ri '683 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq '7/333
$\begin{array}{ll}\text { Wkuhvkrog iru Uhixqgdeoh } & \\ \text { Fklog Wd\{ Fuhglw } & \text { '6/333 }\end{array}$

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri Eolqg 2 | Hoghuo | H\{hpswlrqv |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 4 | 5 | 6 |  |
| Vlqjoh | $43 / 633$ | $44 / ; 83$ | $46 / 733$ |  |  |
| Khdg ri Krxvhkrog | $46 / 583$ | $47 / ; 33$ | $49 / 683$ |  |  |
| Pduulhg ilolqj mrlqwo | $53 / 933$ | $54 / ; 83$ | $56 / 433$ | $57 / 683$ | $58 / 933$ |

Vrxufh= Eorrpehuj EQD 5348 Surmhfwhg Wd\{ Udwhv/ grzqordghg Vhswhpehu 4;/5347 iurp kwws=22eqdlqirleqd1frp2sgi534724483:b5348bSurmhfwhgbWd

5347 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv



| ' 3 | '45/<83 | 431 |
| :---: | :---: | :---: |
| '45/<83 | ' $7</ 733$ | 48 ( |
| ' $7</ 733$ | '45:/883 | 581 |
| '45:/883 | '539/933 | 5; |
| '539/933 | '738/433 | 661 |
| '738/433 | ' 765/533 | 681 |
| '765/533 | dqg ryhu | $6<19$ ( |


|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqjoh | '9/533 | '4/883 |
| Pduulhg ils mrlqwo\| | '45/733 | '4/533 |
| Khdg r: Krxvhkrog | '</433 | '4/883 |
| Pduulhg il، vhsdudwho\| | '9/533 | '4/533 |

$\underline{\text { Li }|r x u ~ i l o l q j ~ v w d w x v ~ l v ~ P d u u l h g ~ i l o l q j ~ m r l q w o| ~}$
Wd\{deoh Lqfrph
Exw qrw
/ Ryhu 000 //// ryhu 0日aujlqdo Udwh

| $\prime 3$ | $\prime 4 ; / 483$ | $43($ |
| :---: | :---: | :---: |
| $\prime 4 ; / 483$ | $\prime: 6 / ; 33$ | $48($ |
| $\prime: 6 / ; 33$ | $\prime 47 ; / ; 83$ | $58($ |
| $\prime 47 ; / ; 83$ | $\prime 559 / ; 83$ | $5 ;($ |
| $\prime 559 / ; 83$ | $\prime 738 / 433$ | $66($ |
| $\prime 738 / 433$ | $\prime 78: / 933$ | $68($ |
| $\prime 78: / 933$ | dq9 ryhu | $6<19($ |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |
| :---: |
| Exw qrw |
| / Ryhu 000 //// ryhu 0paujlqdo Udwh |


| ' 3 | '</3:8 | 431 |
| :---: | :---: | :---: |
| '</3:8 | '69/<33 | 48 ( |
| '69/<33 | ':7/758 | 581 |
| ':7/758 | '446/758 | $5 ; 1$ |
| '446/758 | '535/883 | 661 |
| '535/883 | '55;/;33 | 681 |
| '55;/;33 | dqg ryhu | $6<19$ ( |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '4333 ru vxp ri '683 dqg
lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq $\quad$ ' $6 /<83$
$\begin{array}{ll}\text { Wkuhvkrog iru Uhixqgdeoh } & \\ \text { Fklog Wd\{ Fuhglw } & \text { '6/333 }\end{array}$

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri Eolqg 2 Hoghuo | H\{hpswlrqv |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Vlqjoh | 3 | 4 | 5 | 6 |
| Khdg ri Krxvhkrog | $43 / 483$ | $44 /: 33$ | $46 / 583$ |  |
| Pduulhg ilolqj mrlqwo | $46 / 383$ | $47 / 933$ | $49 / 483$ |  |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 5346068/ grzqordghg Iheuxdu| :/ 5347 iurp kwws=22zzz1luv1jry2sxe2luv0gurs2usC

5346 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv



Vwdqgdug Ghgxfwlrq

|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqjoh | '9/433 | '4/833 |
| Pduulhg ils mrlqwo\| | '45/533 | '4/533 |
| Khdg r: Krxvhkrog | '; / < 83 | '4/833 |
| Pduulhg il، vhsdudwho\| | '9/433 | '4/533 |


| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Exw qrw |  |  |  |
| / Ryhu 000 | //// ryhu 00 | 00Bdujlqdo | Udwh |
| ' 3 | ' 4:/;83 | 431 |  |
| ' 4:/;83 | ':5/833 | 481 |  |
| ':5/833 | '479/733 | 581 |  |
| '479/733 | '556/383 | 3 5; |  |
| '556/383 | ' 6<; /683 | 661 |  |
| ' $6<$; / 683 | '783/333 | 3681 |  |
| ' $783 / 333$ | dqg ryhu | u $6<19$ ( |  |



Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '4333 ru vxp ri '683 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq '6/<33

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw '6/333

Ilolqj Wkuhvkrog

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Qxpehu ri Eolqg | 2 | Hoghuo | H\{hpswlrqv |
| Vlqjoh | 3 | 4 | 5 | 6 |  |
| Khdg ri Krxvhkrog | $43 / 333$ | $44 / 833$ | $46 / 333$ |  |  |
| Pduulhg ilolqj mrlqwo | $45 / ; 83$ | $47 / 683$ | $48 / ; 83$ |  |  |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 5346048/ grzqordghg Mdqxdu| 63/ 5346 iurp $\underline{k w w s=22 z z z 1 l u v 1 j r y 2 l u e 25346038 b L U E 2}$

5345 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| / Ryhu 00 | Exw qrw |  |  |
|  |  | ¢eluj-qdo |  |
| ' 3 | ';/:33 | 431 |  |
| ';/:33 | '68/683 | 48 ( |  |
| '68/683 | ';8/983 | 581 |  |
| ';8/983 | '4:;/983 | $5 ; 1$ |  |
| '4:;/983 | '6; ; /683 | 661 |  |
| '6; ;/683 | dqg ryhu | u 68( |  |

Li

| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Exw qrw |  |  |
| / Ryhu 000 | //// ryhu | 0 ®@ujlqdo | Udwh |


| $\prime 3$ | $\prime 45 / 733$ | $43($ |
| ---: | ---: | ---: |
| $' 45 / 733$ | $\prime 7: / 683$ | $48($ |
| $\prime 7: / 683$ | $' 455 / 633$ | $58($ |
| $' 455 / 633$ | $' 4<; / 383$ | $5 ;($ |
| $' 4<; / 383$ | $' 6 ; i / 683$ | $66($ |
| $' 6 ; ; / 683$ | dqg ryhu | $68($ |

Vwdqgdug Ghgxfwlrq

|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqjoh | ' $8 /<83$ | '4/783 |
| Pduulhg ils mrlqwo\| | $' 44 /<33$ | '4/483 |
| Khdg r: Krxvhkrog | ';/:33 | '4/783 |
| Pduulhg ils vhsdudwho\| | ' $8 /<83$ | '4/483 |

Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|

| Wd\{deoh Lqfrph |
| :---: |
| Exw qrw |
| / Ryhu 000 //// ryhu 0 ©@ujlqdo Udwh |


| $\prime 3$ | $\prime 4: / 733$ | $43($ |
| ---: | ---: | ---: |
| $' 4: / 733$ | $\prime: 3 /: 33$ | $48($ |
| $\prime: 3 /: 33$ | $' 475 /: 33$ | $58($ |
| $' 475 /: 33$ | $' 54: / 783$ | $5 ;($ |
| $' 54: / 783$ | $' 6 ; ; / 683$ | $66($ |
| $' 6 ; ; / 683$ | dqg ryhu | $68($ |

$\underline{\underline{\text { Li }} \text { |rxu ilolqj vwdwxv lv Pduulhg ilolqj }}$ vhsdudwho|

| Wd\{deoh Lqfrph |
| :---: |
|  |
| Exw qrw |


| $\prime 3$ | $\prime ; /: 33$ | $43($ |
| ---: | ---: | ---: |
| $' ; /: 33$ | $' 68 / 683$ | $48($ |
| $' 68 / 683$ | $': 4 / 683$ | $58($ |
| $': 4 / 683$ | $' 43 ; /: 58$ | $5 ;($ |
| $' 43 ; /: 58$ | $\prime 4<7 / 4: 8$ | $66($ |
| $' 4<7 / 4: 8$ | dqg ryhu | $68($ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv

Juhdwhu ri '<83 ru vxp ri '633 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq '6/;33

$$
\begin{aligned}
& \text { Wkuhvkrog iru Uhixqgdeoh Fklog } \\
& \text { Wd\{ Fuhglw }
\end{aligned}
$$

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri Eolqg 2 Hoghuo\| | H\{hpswlrqv |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Vlqjoh | 3 | 4 | 5 | 6 |
| Khdg ri Krxvhkrog | $45 / 83$ | $44 / 533$ | $45 / 983$ |  |
| Pduulhg ilolqj mrlqwo | $4</ 833$ | $56 /<83$ | $48 / 733$ |  |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 5344085/ grzqordghg Mdqxdu| 43/ 5345 iurp kwws=22zzz1luv1jry2sxe2luv0gurs2us C


| $\prime 3$ | $\prime ; / 833$ | $43($ |
| :---: | ---: | :--- |
| $' ; / 833$ | $\prime 67 / 833$ | $48($ |
| $\prime 67 / 833$ | $\prime ; 6 / 933$ | $58($ |
| $\prime ; 6 / 933$ | $\prime 4: 7 / 733$ | $5 ;($ |
| $\prime 4: 7 / 733$ | $\prime 6:</ 483$ | $66($ |
| $' 6:</ 483$ | dqg ryhu | $68($ |



## Vwdqgdug Ghgxfwlrq

|  | Vwdqgdug | Eolqg2Hoghuo |
| :---: | :---: | :---: |
| Vlqje | '8/;33 | '4/78き |
| Pduulhg ilc mrlqwo\| | '44/933 | '4/483 |
| Khdg r: Krxvhkrog | ';/833 | '4/783 |
| Pduulhg ilc vhsdudwho\| | '8/;33 | '4/483 |

Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw qr }}$
/ Ryhu 000 //// ryhu 0థ@Aujlqdo Udwh

| $\prime 3$ | $' 4: / 333$ | $43($ |
| ---: | ---: | ---: |
| $' 4: / 333$ | $' 9</ 333$ | $48($ |
| $' 9</ 333$ | $\prime 46</ 683$ | $58($ |
| $' 46</ 683$ | $\prime 545 / 633$ | $5 ;($ |
| $' 545 / 633$ | $\prime 6:</ 483$ | $66($ |
| $' 6:</ 483$ | dqg ryhu | $68($ |

$\underline{\underline{L i}}$ |rxu ilolqj vwdwxv lv Pduulhg ilolqj ${ }^{j}$ vhsdudwho|

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
|  | Exw qr |  |
| 1 Ryhu 000 | //// ryhu 0 | O@@uj lqdo Udwh |
| ' 3 | ';/833 | 431 |
| ';/833 | '67/833 | 481 |
| '67/833 | ' $9</ 9: 8$ | 581 |
| '9</9:8 | '439/483 | 5; |
| '439/483 | ' 4 ; </8:8 | 661 |
| ' 4 ; </8:8 | dqg ryhu | u 68( |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '<83 ru vxp ri '633 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq '6/:33

Wkuhvkrog iru Uhixqgdeoh Fklog
Wd\{ Fuhglw
$16 / 333$

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri | Eolqg | 2 | Hoghuo |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | H\{hpswlrqv |  |  |  |  |
| Vlqjoh | $</ 833$ | 4 | 5 | 6 |  |
| Khdg ri Krxvhkrog | $45 / 533$ | $43 /<83$ | $45 / 733$ |  |  |
| Pduulhg ilolqj mrlqwo | $4</ 333$ | $56 / 983$ | $48 / 433$ |  |  |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 5344045/ grzqordghg Mdqxdu| 47/ 5344 iurp kwws=22zzz1luv1 jry2sxe2luv0qurs2us0

| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
| Exw qrw |  |  |  |
| / Ryhu 000 | //// ryhu 00Pdujlqdo |  | Udwh |
| , 3 | '; /6:8 | 431 |  |
| '; /6:8 | '67/333 | 481 |  |
| '67/333 | ';5/733 | 581 |  |
| ';5/733 | '4:4/;83 |  |  |
| '4:4/;83 | ' 6:6/983 | 661 |  |
| '6:6/983 | dqg ryhu | 681 |  |

Li $\mid r x u$ ilolqj vwdwxv lv Khdg ri Krxvhkrog

| Wd\{deoh Lqfrph |  |
| :---: | :---: |
| Exw qrw |  |
| / Ryhu $000 \quad$ //// ryhu 000dujlqdo Udwh |  |


| $\prime 3$ | $' 44 /<83$ | $43($ |
| :---: | :---: | :---: |
| $' 44 /<83$ | $' 78 / 883$ | $48($ |
| $' 78 / 883$ | $' 44: / 983$ | $58($ |
| $' 44: / 983$ | $' 4<3 / 883$ | $5 ;($ |
| $' 4<3 / 883$ | $' 6: 6 / 983$ | $66($ |
| $' 6: 6 / 983$ | dqg ryhu | $68($ |

Vwdqgdug Ghgxfwl



Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |
| :---: |
| Exw qrw |

/ Ryhu 000 //// ryhu 000pdujlqdo Udwh

| $\prime 3$ | $\prime ; / 6: 8$ | $43($ |
| ---: | ---: | ---: |
| $' ; / 6: 8$ | $\prime 67 / 333$ | $48($ |
| $' 67 / 333$ | $\prime 9 ; / 983$ | $58($ |
| $' 9 ; / 983$ | $\prime 437 / 958$ | $5 ;($ |
| $' 437 / 958$ | $\prime 4 ; 9 / ; 58$ | $66($ |
| $' 4 ; 9 / ; 58$ | dqg ryhu | $68($ |

Vwdqgdug Ghgxfwlrq iru Ghshqg
Juhdwhu ri '<83 ru vxp ri '633 dqg lqglylgxdo*v hduqhg lqfrph

Shuvrqdo H\{hpswlrq
'6/983

Wkuhvkrog iru Uhixqgdeoh Fklog
Wd\{ Fuhglw '6/333

Ilolqj Wkuhvkrog

|  |  | Qxpehu ri Eolqg 2 | Hoghuo | H\{hpswlrqv |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 4 | 5 | 6 |
| Vlqjoh | $</ 683$ | $43 /: 83$ | $45 / 483$ |  |
| Khdg ri Krxvhkrog | $45 / 383$ | $46 / 783$ | $47 / ; 83$ |  |
| Pduulhg ilolqj mrlqwo | $4 ; /: 33$ | $4</ ; 33$ | $53 /<33$ | $55 / 333$ |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 533<083/ grzqordghg Rfwrehu 54/ 533< iurp kwws=22zzz1luv1jry2sxe2luv0gurs2us03<0831sgi1
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1

90Dxj03<

$$
533<\text { Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ }
$$ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv

| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
| Exw qr |  |  |  |
| / Ryhu 000 | //// ryhu Op | Qaujlqdo | Udwh |
| '3 | ';/683 | 431 |  |
| ';/683 | '66/<83 | 481 |  |
| '66/<83 | ';5/583 | 58 ( |  |
| ';5/583 | '4:4/883 | 5; |  |
| '4:4/883 | '6:5/<83 | 661 |  |
| '6:5/<83 | dqg ryhu | - 68 ( |  |

Li |rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog

| Wd\{deoh Lqfrph |  | 0®aujlqdo |
| :---: | :---: | :---: |
|  | Exw qr |  |
| / Ryhu 000 | //// ryhu 00 |  |
| '3 | '44/<83 | 431 |
| '44/<83 | ' 78/833 | 481 |
| '78/833 | '44:/783 | 581 |
| '44:/783 | ' $4<3 / 533$ | 5; |
| ' $4<3 / 533$ | '6:5/<83 | 66 ( |
| '6:5/<83 | dqg ryhu | 681 |


|  | Vwdqgdu | Eolqg2Hogr |
| :---: | :---: | :---: |
| vlqjc | '8/:3ミ | '4/73 |
| Pduulhg il, mrlqwo\| | '44/733 | '4/433 |
| Khdg r Krxvhkrog | ';/683 | '4/733 |
| Pduulhg il, vhsdudwho\| | '8/:33 | '4/433 |

Shuvrqdo H\{hpswlrq '6/983

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri <br> Skdvhrxw | Pd\{lpxp <br> Skdvhrxw |
| Vlqjc | '499/; 3' | '5; $/ 63$ ' |
| Pduulhg il، mrlqwo\| | '583/533 | '6:5/:33 |
| Khdg r Krxvhkrog | '53; /833 | '664/333 |
| Pduulhg il، vhsdudwho\| | '458/433 | '4;9/683 |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw qr }}$
/ Ryhu 000 //// ryhu poajlqdo Udwh

| $\prime 3$ | $\prime$ | $49 /: 33$ |
| ---: | ---: | ---: |
| $\prime$ | $43($ |  |
| $\prime 49 /: 33$ | $\prime 9: /<33$ | $48($ |
| $\prime 9: /<33$ | $\prime$ | $46: / 383$ |
| $\prime$ | $56($ |  |
| $\prime 6: / 383$ | $\prime 53 ; / ; 83$ | $5 ;($ |
| $\prime 53 ; / 83$ | $\prime 6: 5 /<83$ | $66($ |
| $\prime 6: 5 /<83$ | dqg ryhu | $68($ |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| Exw qr |  |  |
| / Ryhu 000 | //// ryhu (1) | lqdo |
| '3 | ';/683 | 431 |
| ';/683 | '66/<83 | 481 |
| '66/<83 | '9;/858 | 581 |
| '9;/858 | '437/758 | 5; |
| '437/758 | '4;9/7:8 | 661 |
| '4;9/7:8 | dqg ryhu | 681 |

$$
\text { Skdvhrxw ri Lwhpl\}hg Ghgxy }
$$

Pduulhg ilolqj vhsdudwho| ';6/73
Doo rwkl '499/;3i

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '<83 ru vxp ri '633 dqg
lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw , 6/333

## Ilolqj Wkuhvkrog

|  | Qxpehu ri Eolqg 2 | Hoghuo | H\{hpswlrqv |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 4 | 5 | 6 | 7 |


| Vlqjoh | $</ 683$ | $43 /: 83$ | $45 / 483$ |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Khdg ri Krxvhkrog | $45 / 333$ | $46 / 733$ | $47 / ; 33$ |  |  |
| Pduulhg ilolqj mrlqwo | $4 ; /: 33$ | $4</ ; 33$ | $53 /<33$ | $55 / 333$ | $56 / 433$ |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 533;099/ grzqordghg Qryhr
kwws=22zzz1luv1jry2sxe2luv0gurs2us03;0991sgi> K1U1 4/ Dphulfdq Uhfryhu| dqg Uhlqyhvwphqw Dfw ri $533<1$ Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfwlfipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@8;3 iru fklogOuhodwhg wd\{ fuhglw ghwdlov1

70Qry03:
533; Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Li |rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog


|  | Vwdqg ${ }^{\text {du }}$ | Eolqg2Hogr |
| :---: | :---: | :---: |
| Vlqjc | '8/78き | '4/68 |
| Pduulhg il، mrlqwo\| | '43/<33 | '4/383 |
| Khdg r Krxvhkrog | ';/333 | '4/683 |
| Pduulhg il، vhsdudwho\| | '8/783 | '4/383 |

Shuvrqdo H\{hpswlrq '6/833

Skdvhrxw ri Shuvrqdo H\{hpswlrq

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri Skdvhrxw | Pd\{lpxp <br> Skdvhrxw |
| Vlqjc | '48</<8ミ | '5;5/78: |
| Pduulhg il، mrlqwo\| | ' $56</<83$ | '695/783 |
| Khdg r: Krxvhkrog | ' $4 \ll /<83$ | '655/783 |
| Pduulhg il، vhsdudwho\| | ' $44</<: 8$ | '4;4/558 |



| ' 3 | '49/383 | 431 |
| :---: | :---: | :---: |
| '49/383 | '98/433 | 481 |
| '98/433 | '464/783 | 581 |
| '464/783 | '533/633 | 5; |
| '533/633 | '68:/:33 | 661 |
| '68:/:33 | dqg ryhu | 681 |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|
$\frac{\text { Wd\{deoh Lqfrph }}{\substack{\text { Exw qr } \\ \text { / Ryhu } 000 / / / / \text { ryhu (padidlqdo Udwh }}}$

| $\prime 3$ | $\prime ; / 358$ | $43($ |
| ---: | ---: | ---: |
| $\prime ; / 358$ | $\prime 65 / 883$ | $48($ |
| $\prime 65 / 883$ | $\prime 98 /: 58$ | $58($ |
| $\prime 98 /: 58$ | $\prime 433 / 483$ | $5 ;($ |
| $\prime 433 / 483$ | $\prime 4: ; / ; 83$ | $66($ |
| $\prime 4: ; / ; 83$ | dqg ryhu | $68($ |


| Skdvhrxw ri Lwhpl\}hg Ghgxy |  |
| :--- | ---: |
| Pduulhg ilolqj vhsdudwho | $\prime:</<:$ |
| Doo rwkl | , $48</<8$ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri '<33 ru vxp ri '633 dqg
lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw ';/833

Ilolqj Wkuhvkrog

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |


| Vlqjoh | $; /<83$ | $43 / 633$ | $44 / 983$ |  |  |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Khdg ri Krxvhkrog | $44 / 833$ | $45 / ; 83$ | $47 / 533$ |  |  |
| Pduulhg ilolqj mrlqwo | $4: /<33$ | $4 ; /<83$ | $53 / 333$ | $54 / 383$ | $55 / 433$ |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Uhyhqxh Surfhgxuh 533:099/ grzqordghg (
iurp kwws=22zzz1luv1jry2sxe2luv0gurs2us03:0991sgi
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@8;3 iru fklogOuhodwhg wd\{ fuhglw ghwdlov1
533: Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\｛hpswlrqv／dqg Ilolqj Wkuhvkrogv

| Wd\｛deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
| Exw qr |  |  |  |
| ／Ryhu 000 | ／／／／ryhu Op | Qaujlqdo | Udwh |
| ＇3 | ＇：／；58 | 431 |  |
| ＇：／；58 | ＇64／；83 | 48 （ |  |
| ＇64／；83 | ＇：：／433 | 58 （ |  |
| ＇：：／433 | ＇493／；83 | 5； |  |
| ＇493／；83 | ＇67＜／：33 | 661 |  |
| ＇67＜／：33 | dqg ryhu | － 68 （ |  |

$\underline{\underline{\text { Li }} \text {｜rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog }}$
Wd\｛deoh Lqfrph
／Ryhu 000 ／／／／ryhu 0甲aujlqdo Udwh

|  |  |  |
| ---: | ---: | ---: |
| $\prime$ | $\prime 44 / 533$ | $43($ |
| $\prime 44 / 533$ | $\prime 75 / 983$ | $48($ |
| $' 75 / 983$ | $\prime 443 / 433$ | $58($ |
| $' 443 / 433$ | $\prime 4: ; / 683$ | $5 ;($ |
| $' 4: ; / 683$ | $\prime 67</: 33$ | $66($ |
| $' 67</: 33$ | dqg ryhu | $68($ |


|  | Vwdqgdu | Eolqg2Hogł |
| :---: | :---: | :---: |
| Vlqje | ＇8／68き | ＇4／63 |
| Pduulhg il، mrlqwo｜ | ＇43／：33 | ＇4／383 |
| Khdg r Krxvhkrog | ＇：／；83 | ＇4／633 |
| Pduulhg il， vhsdudwho｜ | ＇8／683 | ＇4／383 |

Shuvrqdo H\｛hpswlrq＇6／733

Skdvhrxw ri Shuvrqdo H\｛hpswlrq

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri Skdvhrxw | Pd\｛lpxp Skdvhrxw |
| Vlqjc | ＇489／73ミ | ＇5：；／＜3 |
| Pduulhg il， mrlqwo｜ | ｜567／933 | ＇68：／433 |
| Khdg r Krxvhkrog | ＇ $4<8 / 833$ | ＇64；／333 |
| Pduulhg il， vhsdudwho | ＇44：／633 | ＇4：；／883 |



| $\prime 3$ | $\prime$ | $48 / 983$ |
| :---: | :---: | :---: |
| $\prime$ | $43($ |  |
| $\prime 48 / 983$ | $\prime 96 /: 33$ | $48($ |
| $\prime 96 /: 33$ | $\prime 45 ; / 833$ | $58($ |
| $\prime 45 ; / 833$ | $\prime 4<8 / ; 83$ | $5 ;($ |
| $\prime 4<8 / ; 83$ | $\prime 67</: 33$ | $66($ |
| $\prime 67</: 33$ | dq9 ryhu | $68($ |

Li｜rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho｜
$\frac{\text { Wd }\{\text { deoh Lqfrph }}{\text { Exw } q \text { r }}$
／Ryhu 000 ／／／／ryhu © $\mathbf{~ P a d j l q d o ~ U d w h ~}$

| $\prime 3$ | $\prime: / ; 58$ | $43($ |
| ---: | ---: | ---: |
| $\prime: / ; 58$ | $\prime 64 / ; 83$ | $48($ |
| $\prime 64 / ; 83$ | $\prime 97 / 583$ | $58($ |
| $' 97 / 583$ | $\prime<: /<58$ | $5 ;($ |
| $'<: /<58$ | $\prime 4: 7 / ; 83$ | $66($ |
| $\prime 4: 7 / ; 83$ | dqg ryhu | $68($ |


| Pduulhg ilolqj vhsdudwho｜ | ＇：；／53 |
| :---: | :---: |
| Doo rwk］ | ＇489／73： |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri＇； 83 ru vxp ri＇633 dqg
lqglylgxdo＊v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog wd\｛ Fuhglw ＇44／：83

Ilolqj Wkuhvkrog

|  | Qxpehu ri Eolqg | 2 | Hoghuo | H\｛hpswlrqv |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 4 | 5 | 6 | 7 |  |


| Vlqjoh | $; /: 83$ | $43 / 383$ | $44 / 683$ |  |  |
| :--- | ---: | ---: | ---: | ---: | :--- |
| Khdg ri Krxvhkrog | $44 / 583$ | $45 / 883$ | $46 / ; 83$ |  |  |
| Pduulhg ilolqj mrlqwo | $4: / 833$ | $4 ; / 883$ | $4</ 933$ | $53 / 983$ | $54 /: 33$ |

Vrxufh= Mdphv \rxqj/ \%Lqiodwlrq Dgmxvwphqwv Diihfwlqj Lqglylgxdo
Wd\{ Qrwhv pdjd\}lqh/ Rfwrehu </ 53391
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklogOuhodwhg wd\{ fuhglw ghwdlov1



| '3 | '43/:83 | 431 |
| :---: | :---: | :---: |
| '43/:83 | '74/383 | 481 |
| '74/383 | '439/333 | 581 |
| '439/333 | '4:4/983 | 5; |
| '4:4/983 | '669/883 | 661 |
| '669/883 | dqg ryhu | 681 |


|  | Vwdqgdu | Eolqg2Hogr. |
| :---: | :---: | :---: |
| Vlqjc | '8/48ミ | '4/58 |
| Pduulhg ilc mrlqwo\| | '43/633 | '4/333 |
| Khdg r: <br> Krxvhkrog | ':/883 | '4/583 |
| Pduulhg ilc vhsdudwho\| | '8/483 | '4/333 |

Shuvrqdo H\{hpswlrq '6/633
$\underline{\underline{S k d v h r x w ~ r i ~ S h u v r q d o ~ H\{h p s w l r q ~}}$

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri Skdvhrxw | Pd\{lpxp <br> Skdvhrxw |
| Vlqjc | '483/83: | '5:6/33' |
| Pduulhg ilc mrlqwo\| | \| $\quad 558 /: 83$ | '67;/583 |
| Khdg r: Krxvhkrog | '4; ;/483 | '643/983 |
| Pduulhg ilc vhsdudwho\| | '445/;:8 | '4:7/458 |

Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw } q \text { r }}$
/ Ryhu //// ryh Pdujlqdo Udwh

| $\prime 3$ | $\prime$ | $48 / 433$ |
| :---: | :---: | :---: |
| $' 48 / 433$ | $\prime 94 / 633$ | $48($ |
| $' 94 / 633$ | $\prime 456 /: 33$ | $58($ |
| $' 456 /: 33$ | $' 4 ; ; / 783$ | $5 ;($ |
| $' 4 ; ; / 783$ | $\prime 669 / 883$ | $66($ |
| $' 669 / 883$ | dqg ryhu | $68($ |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| Exw qr |  |  |
| / Ryhu | //// ryh |  |


| $\prime 3$ | $\prime: / 883$ | $43($ |
| ---: | ---: | ---: |
| $\prime: / 883$ | $\prime 63 / 983$ | $48($ |
| $\prime 63 / 983$ | $\prime 94 / ; 83$ | $58($ |
| $\prime 94 / ; 83$ | $'<7 / 558$ | $5 ;($ |
| $'<7 / 558$ | $\prime 49 ; / 5: 8$ | $66($ |
| $' 49 ; / 5: 8$ | dqg ryhu | $68($ |

Skdvhrxw ri Lwhpl\}hg Ghgx:
Pduulhg ilolqj vhsdudwho| ':8/58
Doo rwkl '483/83:

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri ';83 ru vxp ri '633 dqg
lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw '44/633

Ilolqj Wkuhvkrog

|  | 3 |  |  |  |  |  | 4 | 5 | 6 | 7 |
| :--- | ---: | ---: | ---: | ---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Vlqjoh | $; / 783$ | $</: 33$ | $43 /<83$ |  |  |  |  |  |  |  |
| Khdg ri Krxvhkrog | $43 / ; 83$ | $45 / 433$ | $46 / 683$ |  |  |  |  |  |  |  |
| Pduulhg ilolqj mrlqwo | $49 /<33$ | $4: /<33$ | $4 ; /<33$ | $4</<33$ | $53 /<33$ |  |  |  |  |  |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo i
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1


| $\prime 3$ | $\prime: / 633$ | $43($ |
| ---: | ---: | ---: |
| $\prime: / 633$ | $\prime 5</: 33$ | $48($ |
| $' 5</: 33$ | $\prime: 4 /<83$ | $58($ |
| $': 4 /<83$ | $\prime 483 / 483$ | $5 ;($ |
| $' 483 / 483$ | $\prime 659 / 783$ | $66($ |
| $' 659 / 783$ | dqg ryhu | $68($ |



| $\prime 3$ | $\prime 43 / 783$ | $43($ |
| ---: | ---: | :--- |
| $' 43 / 783$ | $\prime 6</ ; 33$ | $48($ |
| $' 6</ ; 33$ | $\prime 435 / ; 33$ | $58($ |
| $' 435 / ; 33$ | $\prime 499 / 783$ | $5 ;($ |
| $' 499 / 783$ | $\prime 659 / 783$ | $66($ |
| $' 659 / 783$ | dq9 ryhu | $68($ |


|  | Vwdqgdu | Eolqg2Hogr. |
| :---: | :---: | :---: |
| Vlqje | '8/33 | '4/58三 |
| Pduulhg ilc mrlqwo\| | $\prime 43 / 333$ | '4/333 |
| Khdg r: Krxvhkrog | ':/633 | '4/583 |
| Pduulhg ilc vhsdudwho\| | '8/333 | '4/333 |
| Shuvrqdo H\{hps | Wlrq | '6/533 |



Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|
$\frac{\text { Wd\{deoh Lqfrph }}{\text { Exw qr }}$
/ Ryhu //// ryh Pdujlqdo Udwh

| $\prime 3$ | $' 47 / 933$ | 431 |
| ---: | ---: | ---: |
| $' 47 / 933$ | $' 8</ 733$ | $48($ |
| $' 8</ 733$ | $\prime 44</<83$ | $58($ |
| $' 44</<83$ | $\prime 4 ; 5 / ; 33$ | $5 ;($ |
| $' 4 ; 5 / ; 33$ | $\prime 659 / 783$ | $66($ |
| $' 659 / 783$ | dq9 ryhu | $68($ |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Exw qr |  |  |
| / Ryhu | $/ / / /$ ryh $\quad$ Pdujlqdo Udwh |  |  |


| $\prime 3$ | $\prime: / 633$ | 431 |
| ---: | ---: | ---: |
| $': / 633$ | $\prime 5</: 33$ | $48($ |
| $' 5</: 33$ | $' 8</<: 8$ | $58($ |
| $' 8</<: 8$ | $'<4 / 733$ | $5 ;($ |
| $'<4 / 733$ | $\prime 496 / 558$ | $66($ |
| $' 496 / 558$ | dq9 ryhu | $68($ |


| Skdvhrxw ri Lwhpl\}hg Ghgx: |  |
| :--- | ---: |
| Pduulhg ilolqj vhsdudwho\| | $\prime: 5 /<:\{$ |
| Doo rwk] | $, 478 /<8:$ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri ';33 ru vxp ri '583 dqg lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw '44/333
Ilolqj Wkuhvkrog


| Vlqjoh | ;/533 | $</ 783$ | $43 /: 33$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Khdg ri Krxvhkrog | $43 / 833$ | $44 /: 83$ | $46 / 333$ |  |  |
| Pduulhg ilolqj mrlqwo | $49 / 733$ | $4: / 733$ | $4 ; / 733$ | $4</ 733$ | $53 / 733$ |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo t
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1

5337 Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


|  | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vlqjoh | :/<83 | </483 | 43/683 |  |  |
| Khdg ri Krxvhkrog | 43/583 | 44/783 | 45/983 |  |  |
| Pduulhg ilolqj mrlqwo\| | $48 /<33$ | 49/;83 | 4:/;33 | 4; /:83 | 4</:33 |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo i
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1

5336 Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


| $\prime 3$ | $\prime: / 333$ | $43($ |
| ---: | ---: | ---: |
| $\prime: / 333$ | $\prime 5 ; / 733$ | $48($ |
| $\prime 5 ; / 733$ | $\prime 9 ; / ; 33$ | $58($ |
| $\prime 9 ; / ; 33$ | $\prime 476 / 833$ | $5 ;($ |
| $' 476 / 833$ | $\prime 644 /<83$ | $66($ |
| $\prime 644 /<83$ | dqg ryhu | $68($ |


| Li $\operatorname{lrxu}$ ilolqj vwdwxv lv Khdg ri Krxvhkrog |  |
| :---: | :---: | :---: |
|  | Wd\{deoh Lqfrph |
| / Ryhu | Exw qr |


| $\prime 3$ | $\prime 43 / 333$ | $43($ |
| ---: | ---: | ---: |
| $' 43 / 333$ | $\prime 6 ; / 383$ | $48($ |
| $\prime 6 ; / 383$ | $'<; / 583$ | $58($ |
| $'<; / 583$ | $\prime 48</ 433$ | $5 ;($ |
| $' 48</ 433$ | $\prime 644 /<83$ | $66($ |
| $' 644 /<83$ | dqg ryhu | $68($ |


|  | Vwdqg ${ }^{\text {du }}$ | Eolqg2Hogh |
| :---: | :---: | :---: |
| Vlqje | '7/:8ミ | '4/48 |
| Pduulhg ilc mrlqwo\| | '</833 | $'<83$ |
| Khdg r: <br> Krxvhkrog | ':/333 | '4/483 |
| Pduulhg ils vhsdudwho\| | '7/:83 | '<83 |

Shuvrqdo H\{hpswlrq '6/383
$\underline{\text { Skdvhrxw ri Shuvrqdo H\{hpswlrq }}$

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri Skdvhrxw | Pd\{lpxp <br> Skdvhrxw |
| Vlqje | '46</83: | '595/33: |
| Pduulhg ilc mrlqwo\| | $\prime 53</ 583$ | '664/:83 |
| Khdg r: Krxvhkrog | '4:7/733 | ' $5<9 /<33$ |
| Pduulhg ilc vhsdudwho\| | '437/958 | '498/; : 8 |

Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| / Ryhu | $\begin{aligned} & \text { Exw qr } \\ & \text { //// ryh } \end{aligned}$ | Pdujlqdo |
| ' 3 | '47/333 | 431 |
| '47/333 | '89/;33 | 481 |
| '89/;33 | '447/983 | 581 |
| '447/983 | '4:7/:33 | $5 ;($ |
| '4:7/:33 | '644/<83 | 661 |
| '644/<83 | dqg ryhu | 68( |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| Exw qr |  |  |
| / Ryhu | //// ryh | Pdujlqdo Udwh |


| $\prime 3$ | $\prime: / 333$ | $43($ |
| ---: | ---: | ---: |
| $\prime: / 333$ | $\prime 5 ; / 733$ | $48($ |
| $\prime 5 ; / 733$ | $\prime 8: / 658$ | $58($ |
| $\prime 8: / 658$ | $\prime ;: / 683$ | $5 ;($ |
| $' ;: / 683$ | $\prime 488 /<: 8$ | $66($ |
| $\prime 488 /<: 8$ | dqg ryhu | $68($ |


| ri Lwhpl\}hg Ghg |  |
| :---: | :---: |
| Pduulhg ilolqj vhsdudwho\| | '9</:83 |
| Doo rwk] | , $46</ 83$ |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri ':83 ru vxp ri '583 dqg
lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw '43/833
Ilolqj Wkuhvkrog

|  | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vlqjoh | :/;33 | ;/<83 | 43/433 |  |  |
| Khdg ri Krxvhkrog | 43/383 | 44/533 | 45/683 |  |  |
| Pduulhg ilolqj mrlqwo\| | 48/933 | 49/883 | 4:/833 | 4;/783 | 4</733 |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklogOuhodwhg wd\{ fuhglw ghwdlov1

5335 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Li $\mid$ rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog


|  | Vwdqgdu | Eolqg2Hogh |
| :---: | :---: | :---: |
| Vlqjc | '7/:3ミ | '4/48 |
| Pduulhg ilc mrlqwo\| | ':/;83 | '<33 |
| Khdg r: Krxvhkrog | '9/<33 | '4/483 |
| Pduulhg ilc vhsdudwho\| | '6/<58 | '<33 |

Skdvhrxw ri Shuvrqdo H\{hpswlrq

|  | DJL |  |
| :---: | :---: | :---: |
|  | Ehjlqqlqj ri Skdvhrxw | Pd\{lpxp Skdvhrxw |
| Vlqjc | '46:/63: | '58</; 3' |
| Pduulhg ilc mrlqwo\| | '539/333 | '65;/833 |
| Khdg r: Krxvhkrog | '4:4/983 | ' $5<7 / 483$ |
| Pduulhg ilc vhsdudwho\| | '436/333 | '497/583 |


| Skdvhrxw ri Lwhpl\}hg Ghgx: |  |
| :--- | :--- |
| Pduulhg ilolqj vhsdudwho\| |  |
| Doo rwkl |  |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv Juhdwhu ri ':83 ru vxp ri '583 dqg lqglylgxdo*v hduqhg lqfrph

Wkuhvkrog iru Uhixqgdeoh Fklog Wd\{ Fuhglw
'43/683
Li $\quad$ rxu ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|


Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj
vhsdudwho

| Wd\{deoh Lqfrph |
| :---: |
| / Ryhu $\quad$ Exw qr |
| //// ryh Pdujlqdo Udwh |


| $\prime 3$ | $\prime 9 / 333$ | $4313($ |
| ---: | ---: | ---: |
| $' 9 / 333$ | $\prime 56 / 683$ | $4813($ |
| $' 56 / 683$ | $\prime 89 / 758$ | $5: 13($ |
| $' 89 / 758$ | $\prime ; 8 /<: 8$ | $6313($ |
| $' ; 8 /<: 8$ | $\prime 486 / 858$ | $6813($ |
| $' 486 / 858$ | dqg ryhu | $6 ; 19($ |

Ilolqj Wkuhvkrog

|  | Qxpehu ri Eolqg | 2 | Hoghuo | H\{hpswlrqv |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 4 | 5 | 6 | 7 |


| Vlqjoh | $: /: 33$ | $i / ; 83$ | $43 / 333$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Khdg ri Krxvhkrog | $</<33$ | $44 / 383$ | $45 / 533$ |  | $4: / 783$ |
| Pduulhg ilolqj mrlqwo | $46 / ; 83$ | $47 /: 83$ | $48 / 983$ | $49 / 883$ | $4: 8$ |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1


| Khdg ri Krxvhkrog | $</ 883$ | $43 / 983$ | $44 /: 83$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Pduulhg ilolqj mrlqwo | $46 / 733$ | $47 / 633$ | $48 / 533$ | $49 / 433$ | $4: / 333$ |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv dqg kwws=22zzz1wd\{srolf|fhqwhu1ruj2wd\{idfwv2glvsod|didfw1fipBGrflg@8;3 iru fklog0uhodwhg wd\{ fuhglw ghwdlov1
$4 \lll$ Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv

| Wd\{deoh Lqfrph |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| / Ryhu 000 Exw qr $/ / /$ ryhu 0paujlqdo Udwh |  |  |  |  |
|  |  |  |  |  |


| $\prime 3$ | $\prime 58 /: 83$ | $4813($ |
| :---: | :---: | :---: |
| $\prime 58 /: 83$ | $\prime 95 / 783$ | $5 ; 13($ |
| $' 95 / 783$ | $\prime 463 / 583$ | $6413($ |
| $' 463 / 583$ | $\prime 5 ; 6 / 483$ | $6913($ |
| $' 5 ; 6 / 483$ | dqg ryhu | $6<19($ |




Li $\mid r x u$ ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo|


Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho|


Skdvhrxw ri Lwhpl\}hg Ghgxi

| Pduulhg ilolqj vhsdudwho | $' 96 / 63:$ |
| :--- | :--- |
| Doo rwkl |  |

Vwdqgdug Ghgxfwlrq iru Ghshqghqwv
Juhdwhu ri ':33 ru vxp ri 's
lqglylgxdo*v hduqhg lqfrph

Ilolqj Wkuhvkrog

|  | Qxpehu ri Eolqg 2 Hoghuo\| |  |  | H\{hpswlrqv |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 4 | 5 | 6 | 7 |
| Vlqjoh | :/383 | ;/433 | </483 |  |  |
| Khdg ri Krxvhkrog | </433 | 43/483 | 44/533 |  |  |
| Pduulhg ilolqj mrlqwo\| | 45/:33 | 46/883 | 47/733 | 48/583 | 49/433 |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

```
4<<; Lqglylgxdo Lqfrph Wd{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
    Shuvrqdo H{hpswlrqv/ dqg Ilolqj Wkuhvkrogv
```



Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1
$4 \ll:$ Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

4<<9 Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

4<<8 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

4<<7 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzzlwd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

4<<6 Lqglylgxdo Lqfrph wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh
Qrwh= Vhh kwws=22zzz1wd\{srolf|fhqwhulruj2wd\{idfwv2glvsod|didfw1fipBGrfLG@86< iru DPW sdudphwhuv1

```
4<<5 Lqglylgxdo Lqfrph Wd{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
    Shuvrqdo H{hpswlrqv/ dqg Ilolqj Wkuhvkrogv
```


Pduulhg ilolqj mrlqwo $\quad 43 / 933 \quad 44 / 633 \quad 45 / 333 \quad 45 /: 33 \quad 46 / 733$

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh

```
4<<4 Lqglylgxdo Lqfrph Wd{ Udwhv/ Vwdqgdug Ghgxfwlrqv/
    Shuvrqdo H{hpswlrqv/ dqg Ilolqj Wkuhvkrogv
```



Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh

4<<3 Lqglylgxdo Lqfrph Wd\{ Udwhv/ Vwdqgdug Ghgxfwlrqv/ Shuvrqdo H\{hpswlrqv/ dqg Ilolqj Wkuhvkrogv


| $' 3$ | $' 4</ 783$ | $4813($ |
| :---: | :--- | :--- |
| $' 4</ 783$ | $\prime$ |  |
| $\prime$ | $7: / 383$ | $5 ; 13($ |
| $\prime: / 383$ | $\prime<: / 953$ | $6613($ |
| $'<: / 953$ | dqg ryhu | $6413($ |

Li |rxu ilolqj vwdwxv lv Khdg ri Krxvhkrog


Ghgxfwlrqv

|  | Vwdqgdu | Eolqg2Hogh. |
| :---: | :---: | :---: |
| Vlqje | '6/583 | ';33 |
| Pduulhg ilc mrlqwo\| | '8/783 | '983 |
| $\begin{gathered} \text { Khdg r: } \\ \text { Krxvhkrog } \end{gathered}$ | ' 7/:83 | ';33 |
| Pduulhg ilc vhsdudwho\| | '5/:58 | '983 |

Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj mrlqwo


Li |rxu ilolqj vwdwxv lv Pduulhg ilolqj vhsdudwho


Vwdqgdug Ghgxfwlrq iru Ghshqghqwv Juhdwhu ri '833 ru lqglylgxdov hduqhg lqfrph

Shuvrqdo h\{hpswlrq '5/383

Ilolqj Wkuhvk


Vrxufh= Lqvwuxfwlrqv iru Irup 4373= Lqwhuqdo Uhyhqxh Vhu
Rfwrehu 4:/ 5339 iurp kwws=22zzz1luv1jry2sxe2luv0sulru2

```
Wd{ \hdu 4<;< Lqglylgxdo Lqfrph Wd{ Sdudphwhuv
```



Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Vwdwlvwlfv ri Lqfrph/ Lqglylgxdo Lqfrph Wd\{ Uhwxuqv 4<;<

```
Wd{ \hdu 4<;; Lqglylgxdo Lqfrph Wd{ Sdudphwhuv
```

Li |rxu ilolqj vw®wxixhlv

| Wd\{deoh Lqfrph |  |  |  |
| :---: | :---: | :---: | :---: |
| / | Ryhu | $\begin{gathered} \text { Exw qr } \\ \text { //// ryh } \end{gathered}$ | Udwh |
|  | ' 3 | '54/783 | 48 ( |
|  | '4:/;83 | ' $76 / 483$ | $5 ; ~($ |
|  | ' $76 / 483$ | '; </893 | 661 |
|  | '; </893 | dqg ryhu | 5; |
| Li \|rxu ilolqj vPduulhg ilolqj m |  |  |  |
| Wd\{deoh Lqfrph |  |  |  |
| / | Ryhu 000 | Exw qrw <br> //// ryhu 000 | Udwh |
|  | ' 3 | ' $5</$ : 83 | 481 |
|  | ' $5</$ : 83 | ': $4 /<33$ | 5; |
|  | ': $4 /<33$ | $' 47</ 583$ | 661 |
|  | $' 47</ 583$ | dqg ryhu | 5; |

Li |rxu ilolqj vwdwxv lv Khdg ri

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| / Ryhu | Exw qr //// ryh | Udwh |
| ' 3 | '56/<3 | 481 |
| '56/<33 | '94/983 | 5; |
| '94/983 | '456/: < 3 | 661 |
| '456/:<3 | dqg ryhu | 5; |

Li |rxu ilolqj vPduulhg ilolqj vhsdr

| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| / Ryhu | Exw qr //// ryh | Udwh |
| ' 3 | '47/; : | 48 ( |
| '47/; 8 | '68/<83 | $5 ; ~$ |
| ' $68 /<83$ | ' $446 / 633$ | 661 |
| '446/633 | dqg ryhu | $5 ;($ |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Vwdwlvwlfv ri Lqfrph/ Lqglylgxdo Lqfrph wd\{ Uhwxuqv 4<; ; +4<<4,

```
wd{ \hdu 4<;: Lqglylgxdo Lqfrph wd{ Sdudphwhuv
```

Li |rxu ilolqj vwすwiximlv Li |rxu ilolqj v*dwwihgvilolqj mrlqwo|

| Wd\{deoh Lqfrph |  | Udwh |
| :---: | :---: | :---: |
|  | Exw qr |  |
| / Ryhu | //// ryh |  |
| '3 | '4/;33 | 44 ( |
| '4/;33 | '49/;33 | 48( |
| '49/;33 | '5:/333 | 5; |
| '5:/33 | '87/33 | 681 |
| , 87/333 | dqg ryhu | 6;18( |


| Wd\{deoh Lqfrph |  | Udwh |
| :---: | :---: | :---: |
|  | Exw qr |  |
| / Ryhu | //// ryh |  |
| '3 | '6/333 | 44 ( |
| '6/333 | '5;/333 | 48 ( |
| '5;/333 | , 78/333 | 5; |
| ' 78/33 | '<3/33 | 681 |
| '<3/333 | dqg ryhu | 6;18( |

Li |rxu ilolqj vwdwxv lv Khdg ri
Li |rxu ilolqj vPduulhg ilolqj vhsdu

| wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
| / Ryhu | $\begin{aligned} & \text { Exw qr } \\ & \text { //// ryh } \end{aligned}$ | Udwh |
| '3 | '5/83 | 44 ( |
| '5/833 | '56/333 | 481 |
| '56/333 | '6;/333 | 5; |
| 16;/333 | ';3/333 | 681 |
| ';3/333 | dqg ryhu | 6;18 ( |


| Wd\{deoh Lqfrph |  |  |
| :---: | :---: | :---: |
|  | Exw qr |  |
| / Ryhu | $/ / / /$ ryh | Udwh |


| $\prime 3$ | $\prime 4 / 83$ | $44($ |
| :---: | :---: | :---: |
| $\prime 4 / 833$ | $\prime 47 / 333$ | $48($ |
| $\prime 47 / 333$ | $\prime 55 / 833$ | $5 ;($ |
| $\prime 55 / 833$ | $\prime 78 / 333$ | $68($ |
| $\prime 78 / 333$ | dqg ryhu | $6 ; 18($ |

Vrxufh= Lqwhuqdo Uhyhqxh Vhuylfh/ Vwdwlvwlfv ri Lqfrph/ Lqglylgxdo Lqfrph wd\{ Uhwxuqv 4<;: +4<<3,1

| Lqglylgxdo Lqfrph Wd\{ Sdudp Pduulhg Ilolqj Mrlqwo\| 4<; 9 |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '6/9:3 | 31 |
| '6/9:3 | 0 | ' $8 /<73$ | 441 |
| ' $8 /<73$ | 0 | ';/533 | 451 |
| ';/53 | c | '45/;7 | 471 |
| '45/; 7 | c | '4:/5: | 491 |
| '4:/5: | c | '54/; 3 | 4; |
| '54/;3 | c | '59/88 | 551 |
| '59/88 | c | '65/5: | 581 |
| '65/5: | ( | ' 6:/<; | 5; |
| '6:/<; | ( | ' $7</ 75$ | 661 |
| ' $7</ 75$ | c | '97/:8 | 6; |
| '97/:8 | ( | '<5/6: | 751 |
| '<5/6: | c | '44; /38 | 781 |
| '44; /38 | c | ' $4: 8 / 58$ | $7<1$ |
| ' $4: 8 / 583$ | 0 dqg | ryhu | 831 |

Qrwhv=
41 4<;4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw

Vrxufh= Mrvhsk Shfkpolaghudo Wd\{ Srbleqdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ Sdudp Pduulhg Ilolqj Mrlqwo\| 4<; 8 |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '6/873 | 31 |
| '6/873 | 0 | ' 8/:53 | 441 |
| '8/:53 | 0 | ':/<43 | 451 |
| ':/<4 | c | '45/6< | 471 |
| ' $45 / 6<$ | c | '49/98 | 491 |
| '49/98 | ( | '54/35 | 4; |
| '54/35 | c | '58/93 | 551 |
| '58/93 | c | '64/45 | 581 |
| '64/45 | c | '69/96 | 5; |
| '69/96 | c | ' 7:/9: | 661 |
| '7:/9: | c | '95/78 | 6; |
| '95/78 | c | '; $</ 3<$ | 751 |
| ' ; </3< | c | '446/; 9 | 781 |
| '446/; 9 | C | ' $49</ 35$ | $7<1$ |
| ' $49</ 353$ | 0 dqg | ryhu | 831 |

Qrwhv=
41 4<;4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw

Vrxufh= Mrvhsk Shfkpolaghudo Wd\{ Srbleqdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ Sdudp Pduulhg Ilolqj Mrlqwo\| 4<;7 |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '6/733 | 31 |
| '6/733 | 0 | '8/833 | 441 |
| '8/833 | 0 | ':/933 | 451 |
| ':/93 | ( | '44/<3 | 471 |
| $' 44 /<3$ | C | '49/33 | 491 |
| '49/33 | C | '53/53 | 4; |
| '53/53 | C | '57/93 | 551 |
| '57/93 | C | , $5</<3$ | 581 |
| ' $5</<3$ | C | '68/53 | 5; |
| '68/53 | ( | '78/; 3 | 661 |
| '78/; 3 | C | '93/33 | 6; |
| '93/33 | ( | ';8/93 | 751 |
| ';8/93 | ( | ' $43</ 73$ | 781 |
| ' $43</ 73$ | c | ' $495 / 73$ | $7<1$ |
| '495/733 | 0 dqg | ryhu | 831 |

Qrwhv=
41 4<; 4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw
61 Grhv qrw lqfoxgh dgg0rq plqlpxp wd\{ rq suhihuhqfh lwhpv ru dowhuqdwlyh plqlpxp wd\{1

71 Grhv qrw doorz iru wkh uhixqgdeoh hduqhgolqfrph fuhglw1

Vrxufh= Mrvhsk Shfkpdarghudo Wd\{ Srbl㡽dvklqjwrq/
GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ Sdudp Pduulhg Ilolqj Mrlqwo\| 4<; 6 |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '6/733 | 31 |
| '6/733 | 0 | '8/833 | 44 ( |
| '8/833 | 0 | ':/933 | 461 |
| ':/93 | c | '44/<3 | 481 |
| $' 44 /<3$ | C | '49/33 | 4: |
| '49/33 | c | '53/53 | $4<1$ |
| '53/53 | c | '57/93 | 561 |
| '57/93 | c | , $5</<3$ | 591 |
| ' $5</<3$ | C | '68/53 | 631 |
| '68/53 | ( | '78/; 3 | 681 |
| '78/; 3 | c | '93/33 | 731 |
| '93/33 | ( | ';8/93 | 771 |
| '; 8/93 | C | ' $43</ 73$ | 7; |
| $' 43</ 733$ | 0 dqg | ryhu | 831 |

Qrwhv=
41 4<;4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw
61 Grhv qrw lqfoxgh dgg0rq plqlpxp wd\{ rq suhihuhqfh lwhpv ru dowhuqdwlyh plqlpxp wd\{1

71 Grhv qrw doorz iru wkh uhixqgdeoh hduqhgolqfrph fuhglw1

Vrxufh= Mrvhsk Shfkpdaghudo wd\{ Srblfqvklqjwrq/
GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ sdudp Pduulhg Ilolqj Mrlqwo\| 4<; 5 |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deo | h Lqf |  | Udwh |
| ' 3 | 0 | '6/733 | 31 |
| '6/733 | 0 | '8/833 | 451 |
| '8/833 | 0 | ':/933 | 471 |
| ':/93 | c | ' $44 /<3$ | 491 |
| $\prime 44 /<3$ | ( | '49/33 | $4<1$ |
| '49/33 | c | '53/53 | 551 |
| '53/53 | c | '57/93 | 581 |
| '57/93 | ( | , $5</<3$ | $5<1$ |
| , $5</<3$ | ( | '68/53 | 661 |
| '68/53 | ( | '78/; 3 | $6<1$ |
| '78/; 3 | c | '93/33 | 771 |
| '93/33 | ( | ';8/93 | $7<1$ |
| ';8/933 | 0 dqg | ryhu | 831 |

Qrwhv=
41 4<; 4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw
61 Grhv qrw lqfoxgh dgg0rq plqlpxp wd\{ rq suhihuhqfh lwhpv ru dowhuqdwlyh plqlpxp wd\{1

71 Grhv qrw doorz iru wkh uhixqgdeoh hduqhg0lqfrph fuhglw1

Vrxufh= Mrvhsk Shfkpglagh
GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

```
    Lqglylgxdo Lqfrph Wd{ Sdudphwhuv
        Pduulhg Ilolqj Mrlqwo|
            4<;4
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{3}{|l|}{Wd\{deoh Lqfrph} & Udwh \\
\hline ' 3 & 0 & '6/733 & 31 \\
\hline '6/733 & 0 & '8/833 & 461;61 \\
\hline '8/833 & 0 & ':/933 & 481;31 \\
\hline ':/93 & C & '44/<3 & 4:1: 81 \\
\hline \(' 44 /<3\) & C & '49/33 & 531:6:8 \\
\hline '49/33 & C & '53/53 & 561:31 \\
\hline '53/53 & C & '57/93 & 5:1981 \\
\hline '57/93 & C & , \(5</<3\) & 641931 \\
\hline , \(5</<3\) & C & '68/53 & 69186:8 \\
\hline '68/53 & C & '78/; 3 & 7517958 \\
\hline '78/; 3 & ( & '93/33 & 7;16; 8 , \\
\hline '93/33 & C & ';8/93 & 8616583 \\
\hline ';8/93 & c & ' \(43</ 73\) & 8;15958 \\
\hline ' \(43</ 73\) & C & ' \(495 / 73\) & 961531 \\
\hline '495/73 & C & '548/73 & 9:148। \\
\hline '548/733 & 0 dqg & ryhu & 9<1458 ( \\
\hline
\end{tabular}
Qrwhv=
41 4<; 4 Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw
61 Grhv qrw lqfoxgh dgg0rq plqlpxp wd\{ rq suhihuhqfh lwhpv ru dowhuqdwlyh plqlpxp wd\{1
71 Grhv qrw doorz iru wkh uhixqgdeoh hduqhg0lqfrph fuhglw1 81 Diwhu wd\{ fuhglw ri 4158 shufhqw djdlqvw uhjxodu wd\{1
Vrxufh= Mrvhsk Shfkpalarghudo Wd\{ Srbleqqvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
```

Lqglylgxdo Lqfrph Wd\{ Sdudphwhuv
Pduulhg Ilolqj Mrlqwo|

$$
4<:<04<; 3
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '6/733 | 31 |
| '6/733 | 0 | '8/833 | 471 |
| '8/833 | 0 | ':/933 | 491 |
| ':/93 | c | '44/<3 | 4; |
| '44/<3 | c | '49/33 | 541 |
| '49/33 | c | '53/53 | 571 |
| '53/53 | c | '57/93 | 5; |
| '57/93 | c | '5</<3 | 651 |
| '5</<3 | c | '68/53 | 6:1 |
| '68/53 | c | '78/;3 | 761 |
| '78/; 3 | c | '93/33 | $7<1$ |
| '93/33 | c | ';8/93 | 87 ( |
| ';8/93 | c | ' $43</ 73$ | $8<1$ |
| ' $43</ 73$ | c | '495/73 | 971 |
| '495/73 | c | '548/73 | 9; ${ }^{\text {( }}$ |
| '548/733 | 0 dqg | ryhu | :31 |

Qrwhv=
41 4<:; Dfw
51 Lqfoxghv \}hur0eudfnhw dprxqw
61 Grhv qrw lqfoxgh dggorq plqlpxp wd\{ rq suhihuhqfh lwhpv ru dowhuqdwlyh plqlpxp wd\{1
71 Hduqhg lqfrph vxemhfw wr pd\{lpxp pdujlqdo udwh ri 83 shufhqw1

81 Grhv qrw doorz iru wkh uhixqgdeoh hduqhgolqfrph fuhglw1

Vrxufh = Mrvhsk Shfkp $\ddagger$ hqhudo Wd\{ Srbleqdvklqjwrq/
GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ sdudp Pduulhg Ilolqj Mrlqwo\| 4<: : 04<: ; |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '6/533 | 31 |
| '6/533 | 0 | '7/533 | 471 |
| '7/533 | 0 | '8/533 | 481 |
| '8/533 | 0 | '9/533 | 491 |
| '9/533 | 0 | ':/533 | 4 : |
| ':/533 | 0 | '44/533 | $4<1$ |
| '44/533 | 0 | '48/533 | 551 |
| , 48/533 | 0 | , $4</ 533$ | 581 |
| ' $4</ 533$ | 0 | '56/533 | 5; |
| '56/533 | 0 | ' $5: / 533$ | 651 |
| '5:/533 | 0 | '64/533 | 691 |
| '64/533 | 0 | '68/533 | $6<1$ |
| '68/533 | 0 | ' $6</ 533$ | 751 |
| , $6</ 533$ | 0 | , 76/533 | 781 |
| '76/533 | 0 | '7:/533 | 7; |
| '7:/533 | 0 | '88/533 | 831 |
| '88/533 | 0 | ' $9: / 533$ | 861 |
| '9:/533 | 0 | ' $:</ 533$ | 88 ( |
| ' : </533 | 0 | '<4/533 | 8; |
| '<4/533 | 0 | ' $436 / 533$ | 931 |
| $' 436 / 533$ | 0 | '456/533 | 951 |
| '456/533 | 0 | '476/533 | 971 |
| ' $476 / 533$ | 0 | '496/533 | 991 |
| '496/533 | 0 | '4;6/533 | 9; |
| '4;6/533 | 0 | '536/533 | $9<1$ |
| '536/533 | 0 dqg | ryhu | : 31 |

Vrxufh= Lqvwuxfwlrqv iru Irup 4373/ Lqwhuqdo Uhyhqxh Vhuylfh/ dydlodeoh iru grzqordg dw> kwws=22zzz1luv1jry2sxe2luv0sulru2l4373004<: :1sgi> 4<:; = kwws=22zzz1luv1jry2sxe2luv0sulru2l4373004<:;1sgi

```
    Lqglylgxdo Lqfrph wd\{ Sdudphwhuv
```

        Pduulhg Ilolqj Mrlqwo|
            4<:404<: 9
    | Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '4/333 | 471 |
| '4/333 | 0 | '5/333 | 481 |
| '5/333 | 0 | '6/333 | 491 |
| '6/33 | c | ' 7/33 | 4: ( |
| '7/33 | c | ';/33 | $4<1$ |
| ';/33 | c | '45/33 | 551 |
| '45/33 | c | '49/33 | 581 |
| '49/33 | c | '53/33 | 5; |
| '53/33 | c | '57/33 | 651 |
| '57/33 | c | '5;/33 | 691 |
| '5;/33 | c | '65/33 | $6<1$ |
| '65/33 | ( | '69/33 | 751 |
| '69/33 | c | '73/33 | 781 |
| '73/33 | c | '77/33 | 7; |
| '77/33 | c | '85/33 | 831 |
| '85/33 | c | '97/33 | 861 |
| '97/33 | c | ':9/33 | 881 |
| ':9/33 | c | '; ;/33 | 8; |
| '; ;/33 | c | '433/33 | 931 |
| '433/33 | c | '453/33 | 951 |
| '453/33 | c | '473/33 | 971 |
| '473/33 | c | '493/33 | 991 |
| '493/33 | c | '4;3/33 | 9; |
| '4;3/33 | c | '533/33 | $9<1$ |
| '533/333 | 0 dqg | ryhu | :31 |

Qrwhv=
41 4<9< Dfw
51 Grhv qrw lqfoxgh plqlpxp wd\{ suhihuhqfh lwhpv1
61 Hduqhg lqfrph vxemhfw wr pd\{lpxp pdujlqdo udwhv ri 93
shufhqw lq 4<:4 dqg 83 shufhqw ehjlqqlqj lq 4<:51
71 Grhv qrw doorz iru 43 shufhqw uhedwh ri $4<: 7$ wd\{hv +pd\{lpxp ri '533, ru d uhixqgdeoh hduqhgolqfrph fuhglw ri 43 shufhqw hduqhg lqfrph xs wr '7/333 +skdvhg grzq wr \}hur dw ';/333, ehjlqqlqj lq 4<:81

Vrxufh= Mrvhsk Shfkpdlaghudo Wd\{ Srblifdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '4/333 | 471331 |
| '4/333 | 0 | '5/333 | 481331 |
| '5/333 | 0 | '6/333 | 49173( |
| '6/33 | c | '7/33 | 4:1758 |
| '7/33 | c | ';/33 | 4<17:8। |
| ';/33 | c | '45/33 | 551881 |
| '45/33 | c | '49/33 | 5819581 |
| '49/33 | c | '53/33 | 5;1:31 |
| '53/33 | c | '57/33 | 651;31 |
| '57/33 | c | '5;/33 | 691<31 |
| '5;/33 | c | '65/33 | 6<1<: 8 , |
| '65/33 | c | '69/33 | 761381 |
| '69/33 | c | '73/33 | 791458 , |
| '73/33 | c | '77/33 | $7<153$ ( |
| '77/33 | c | '85/33 | 841581 |
| '85/33 | c | '97/33 | 8716581 |
| '97/33 | c | ':9/33 | 8916:81 |
| ':9/33 | c | '; ;/33 | $8<178$ ( |
| '; ;/33 | c | '433/33 | 941831 |
| '433/33 | c | '453/33 | 961881 |
| '453/33 | c | '473/33 | 981931 |
| '473/33 | c | '493/33 | 9:198। |
| '493/33 | c | '4;3/33 | 9<1:31 |
| '4;3/33 | C | '533/33 | :31:581 |
| '533/333 | 0 dqg | ryhu | :41:8( |

Qrwhv=
41 4<9< Dfw
51 Lqfoxghv vxufkdujh ri 518 shufhqw / ehjlqqlqj zlwk wkh
'5/33306/333 eudfnhw1 D sduwldo vxufkdujh h\{hpswlrq/ edvhg rq d judgxdwhg vfdoh/ dssolhg wr wklv dqg wkh qh\{w kljkhu eudfnhw1 Wkh pdujlqdo udwhv lq wkhvh eudfnhwv w voljkwo| iurp wkrvh vkrzq deryh

61 Grhv qrw lqfoxgh plqlpxp wd\{ suhihuhqfh lwhpv1

Vrxufh= Mrvhsk Shfkpdaghudo Wd\{ Srbleqdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '4/333 | 47131 |
| '4/333 | 0 | '5/333 | 48131 |
| '5/333 | 0 | '6/333 | 4:19( |
| '6/33 | c | '7/33 | 4;1: ( |
| '7/33 | c | ';/33 | 531<1 |
| ';/33 | c | '45/33 | 57151 |
| '45/33 | c | '49/33 | 5:181 |
| '49/33 | c | '53/33 | 631; |
| '53/33 | c | '57/33 | 6815 ( |
| '57/33 | c | '5;/33 | $6<19$ ( |
| '5;/33 | c | '65/33 | 751<1 |
| '65/33 | c | '69/33 | 7915 ( |
| '69/33 | c | '73/33 | 7<18 ( |
| ' 73/33 | c | '77/33 | 851; |
| '77/33 | c | '85/33 | 88131 |
| '85/33 | c | '97/33 | 8;161 |
| '97/33 | c | ':9/33 | 9318( |
| ':9/33 | c | '; ;/33 | 961; |
| '; ;/33 | c | '433/33 | 99131 |
| '433/33 | c | '453/33 | 9;15 ( |
| '453/33 | c | '473/33 | :317( |
| '473/33 | c | '493/33 | :519( |
| '493/33 | c | '4;3/33 | :71; |
| '4;3/33 | C | '533/33 | : 81<1 |
| '533/333 | 0 d | ryhu | : : 13 ( |

Qrwhv=
41 4<9; Dfw
51 Lqfoxghv vxufkdujh ri 43 shufhqw / ehjlqqlqj zlwk wkh
'5/33306/333 eudfnhw1 D sduwldo vxufkdujh h\{hpswlrq/ edvhg rq d judgxdwhg vfdoh/ dssolhg wr wklv dqg wkh qh\{w kljkhu eudfnhw1 Wkh pdujlqdo udwhv lq wkhvh eudfnhwv w voljkwo| iurp wkrvh vkrzq deryh

Vrxufh= Mrvhsk Shfkpdlaghudo Wd\{ Srbleqdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

| Lqglylgxdo Lqfrph Wd\{ Sdudph Pduulhg Ilolqj Mrlqwo\| 4<9; |  |  |  |
| :---: | :---: | :---: | :---: |
| Wd\{deoh Lqfrph |  |  | Udwh |
| ' 3 | 0 | '4/333 | 471331 |
| '4/333 | 0 | '5/333 | 481331 |
| '5/333 | 0 | '6/333 | 4:153 ( |
| '6/33 | c | '7/33 | 4;15:8। |
| '7/33 | C | ';/33 | 531758। |
| ';/33 | ( | '45/33 | 5619831 |
| '45/33 | ( | '49/33 | 591; 81 |
| '49/33 | C | '53/33 | 631431 |
| '53/33 | C | '57/33 | 671731 |
| '57/33 | c | '5;/33 | 6;1:31 |
| '5;/33 | ( | '65/33 | $741<581$ |
| '65/33 | C | '69/33 | 781481 |
| '69/33 | C | '73/33 | 7;16:8। |
| '73/33 | C | '77/33 | 841931 |
| '77/33 | C | '85/33 | 861:81 |
| '85/33 | C | '97/33 | 891<: 81 |
| '97/33 | C | ':9/33 | $8<1458$ । |
| ':9/33 | ( | '; ; / 33 | 951681 |
| '; ;/33 | ( | '433/33 | 971831 |
| '433/33 | c | '453/33 | 991981 |
| '453/33 | C | '473/33 | 9;1; 31 |
| '473/33 | C | '493/33 | : $31<81$ |
| '493/33 | c | '4;3/33 | :61431 |
| ' 4 ; $3 / 33$ | C | '533/33 | :714:81 |
| '533/333 | 0 dqg | ryhu | :8158( |

Qrwhv=
41 4<9; Dfw
51 Lqfoxghv vxufkdujh ri :18 shufhqw / ehjlqqlqj zlwk wkh
'5/33306/333 eudfnhw1 D sduwldo vxufkdujh h\{hpswlrq/ edvhg rq d judgxdwhg vfdoh/ dssolhg wr wklv dqg wkh qh\{w kljkhu eudfnhwl wkh pdujlqdo udwhv lq wkhvh eudfnhwv $\mathbf{n}$ voljkwo| iurp wkrvh vkrzq deryh

Vrxufh= Mrvhsk Shfkpalghudo wd\{ Srbl庸qvklqjwrq/
GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

$$
\begin{aligned}
& \text { Lqglylgxdo Lqfrph Wd\{ Sdudphwhuv } \\
& \text { Pduulhg Ilolqj Mrlqwo| } \\
& 4<9804<9:
\end{aligned}
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '4/333 | 471 |
| '4/333 | 0 | '5/333 | 481 |
| '5/333 | 0 | '6/333 | 491 |
| '6/33 | c | '7/33 | 4: ( |
| '7/33 | c | ';/33 | $4<1$ |
| ';/33 | c | '45/33 | 551 |
| '45/33 | c | '49/33 | 581 |
| '49/33 | c | '53/33 | 5; |
| '53/33 | c | '57/33 | 651 |
| '57/33 | c | '5;/33 | 691 |
| '5;/33 | c | '65/33 | $6<1$ |
| '65/33 | c | '69/33 | 751 |
| '69/33 | c | '73/33 | 781 |
| '73/33 | c | '77/33 | 7; |
| '77/33 | c | '85/33 | 831 |
| '85/33 | c | '97/33 | 861 |
| '97/33 | c | ':9/33 | 881 |
| ':9/33 | c | '; ;/33 | 8; |
| '; ;/33 | c | '433/33 | 931 |
| '433/33 | c | '453/33 | 951 |
| '453/33 | c | '473/33 | 971 |
| '473/33 | c | '493/33 | 991 |
| '493/33 | c | '4;3/33 | 9; |
| '4;3/33 | c | '533/33 | $9<1$ |
| '533/333 | 0 dq | ryhu | :31 |

Vrxufh= Mrvhsk Shfkpdaghudo Wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1 4<97 Dfw

Lqglylgxdo Lqfrph Wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|

$$
4<97
$$



```
Vrxufh= Mrvhsk Shfkpdughudo Wd{ Srblf|
Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
4<97 Dfw
```

Lqglylgxdo Lqfrph wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|

$$
4<8704<96
$$

| Wd\{deoh Lqfrph |  |  |  | Udwh |
| :---: | :---: | :---: | :---: | :---: |
| '3 | 0 |  | '7/333 | 53131 |
| '7/333 | 0 |  | ';/333 | 55131 |
| ';/333 | 0 |  | '45/333 | 59131 |
| '45/33 | c |  | '49/33 | 63131 |
| '49/33 | c |  | '53/33 | 67131 |
| '53/33 | c |  | '57/33 | 6;131 |
| '57/33 | c |  | '5;/33 | 76131 |
| '5;/33 | c |  | '65/33 | 7:131 |
| '65/33 | c |  | '69/33 | 83131 |
| '69/33 | c |  | '73/33 | 86131 |
| '73/33 | c |  | '77/33 | 89131 |
| '77/33 | c |  | '85/33 | 8<13 ( |
| '85/33 | c |  | '97/33 | 95131 |
| '97/33 | c |  | ':9/33 | 9813 ( |
| ':9/33 | c |  | '; ;/33 | 9<13 ( |
| '; ;/33 | c |  | '433/33 | :5131 |
| '433/33 | c |  | '453/33 | : 813 ( |
| '453/33 | c |  | '473/33 | :;131 |
| '473/33 | c |  | '493/33 | ; 4131 |
| '493/33 | c |  | '4;3/33 | ; 7131 |
| '4;3/33 | c |  | '533/33 | ; :131 |
| '533/33 | c |  | '633/33 | ;<13 ( |
| '633/33 | c |  | '733/33 | <313 1 |
| ' 733/333 |  | dqg | ryr ${ }^{\text {d }}$ | <413 ( |

Vrxufh= Mrvhsk Shfkpdlaghudo wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{\text {d}}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrq= ;:(
e $4<84$ D:

Lqglylgxdo Lqfrph wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|

$$
4<8504<86
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '7/333 | 5515 ( |
| '7/333 | 0 | ';/333 | 57191 |
| ';/333 | 0 | '45/333 | 5<13 ( |
| '45/33 | c | '49/33 | 67131 |
| '49/33 | c | '53/33 | 6;131 |
| '53/33 | c | '57/33 | 75131 |
| '57/33 | c | '5;/33 | 7;131 |
| '5;/33 | c | '65/33 | 86131 |
| '65/33 | c | '69/33 | 89131 |
| '69/33 | c | '73/33 | 8<13 ( |
| '73/33 | c | '77/33 | 95131 |
| '77/33 | c | '85/33 | 99131 |
| '85/33 | c | '97/33 | 9:131 |
| '97/33 | c | ':9/33 | 9;131 |
| ':9/33 | c | '; ;/33 | :5131 |
| '; ;/33 | c | '433/33 | : 8131 |
| '433/33 | c | '453/33 | : : 131 |
| '453/33 | c | '473/33 | ; 3131 |
| '473/33 | c | '493/33 | ; 6131 |
| '493/33 | c | '4;3/33 | ; 8131 |
| '4;3/33 | c | '533/33 | ; 131 |
| '533/33 | c | '633/33 | <3131 |
| '633/33 | C | '733/33 | <413 1 |
| '733/333 | 0 dqg | ryr ${ }^{\text {d }}$ | <513 ( |

Vrxufh= Mrvhsk Shfkpdlaghudo wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{d}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrq= ; ;

Lqglylgxdo Lqfrph wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|

$$
4<84
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '7/333 | 5317 ( |
| '7/333 | 0 | ';/333 | 55171 |
| ';/333 | 0 | '45/333 | 5:131 |
| '45/33 | c | '49/33 | 63131 |
| '49/33 | c | '53/33 | 68131 |
| '53/33 | c | '57/33 | 6<13 |
| '57/33 | c | '5;/33 | 76131 |
| '5;/33 | c | '65/33 | 7;131 |
| '65/33 | c | '69/33 | 84131 |
| '69/33 | c | '73/33 | 87131 |
| '73/33 | c | '77/33 | 8:131 |
| '77/33 | c | '85/33 | 93131 |
| '85/33 | c | '97/33 | 96131 |
| '97/33 | c | ':9/33 | 99131 |
| ':9/33 | c | '; ;/33 | 9<13 ( |
| '; ;/33 | c | '433/33 | :6131 |
| '433/33 | c | '453/33 | :813( |
| '453/33 | c | '473/33 | : ;13( |
| '473/33 | c | '493/33 | ; 513( |
| '493/33 | c | '4;3/33 | ; 7131 |
| '4;3/33 | c | '533/33 | ;:13( |
| '533/33 | c | '633/33 | ; <13 ( |
| '633/33 | C | '733/33 | <313 1 |
| '733/333 | 0 dqg | ryr ${ }^{\text {d }}$ | <413 ( |

Vrxufh= Mrvhsk Shfkpdlaghudo wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{d}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrq= ;:15(1
e $4<84 \mathrm{D}$ :

Lqglylgxdo Lqfrph wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|
$4<83$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '7/333 | 4:1731 |
| '7/333 | 0 | ';/333 | 53135 ( |
| ';/333 | 0 | '45/333 | 56199 ( |
| '45/33 | c | '49/33 | 5:1631 |
| '49/33 | c | '53/33 | $631<71$ |
| '53/33 | c | '57/33 | 6718; |
| '57/33 | c | '5;/33 | 6<146 |
| '5;/33 | c | '65/33 | 751: : 1 |
| '65/33 | c | '69/33 | 781831 |
| '69/33 | c | '73/33 | 7;156 |
| '73/33 | c | '77/33 | $831<91$ |
| '77/33 | c | '85/33 | 8619<1 |
| '85/33 | c | '97/33 | 89175 |
| '97/33 | c | ':9/33 | 8<148 |
| ':9/33 | c | '; ;/33 | 951:<1 |
| '; ;/33 | c | '433/33 | 981851 |
| '433/33 | c | '453/33 | 9;1581 |
| '453/33 | c | '473/33 | :31<; 1 |
| '473/33 | c | '493/33 | :61:41 |
| '493/33 | c | '4;3/33 | :91771 |
| '4;3/33 | $c$ | '533/33 | :<14: |
| '533/33 | c | '5:6/76 | ; $31 \ll 1$ |
| '5:6/76 | $c$ | '633/33 | ; 518361 |
| '633/33 | C | '733/33 | ; 617631 |
| '733/333 | 0 dqg | ryr. ${ }^{\text {d }}$ | ;7168:( |

Vrxufh= Mrvhsk Shfkpdlaghudo wd\{ Srblf|
Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{d}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrq= ;:(1 e $4<83 \mathrm{D}$ :

Lqglylgxdo Lqfrph wd\{ Sdudphwhuv Pduulhg Ilolqj Mrlqwo|

$$
4<7 ; 04<7<
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '7/333 | 49193( |
| '7/333 | 0 | ';/333 | 4<169 ( |
| ';/333 | 0 | '45/333 | 551; ; |
| '45/33 | c | '49/33 | 591731 |
| '49/33 | c | '53/33 | $5<1<5$ ( |
| '53/33 | c | '57/33 | 661771 |
| '57/33 | c | '5;/33 | 6:1;71 |
| '5;/33 | c | '65/33 | 741691 |
| '65/33 | c | '69/33 | 771331 |
| '69/33 | c | '73/33 | 791971 |
| '73/33 | c | '77/33 | 7<15; |
| '77/33 | c | '85/33 | 841<5 |
| '85/33 | c | '97/33 | 871891 |
| '97/33 | c | ':9/33 | 8:1531 |
| ':9/33 | c | '; ;/33 | 931:51 |
| '; ;/33 | c | '433/33 | 961691 |
| '433/33 | c | '453/33 | 991331 |
| '453/33 | c | '473/33 | 9;1971 |
| '473/33 | c | '493/33 | :415; |
| '493/33 | c | '4;3/33 | :61<5 ( |
| '4;3/33 | c | '533/33 | :9189 |
| '533/33 | c | '5:6/76 | :;165 |
| '5:6/76 | c | '633/33 | ; 316558 |
| '633/33 | c | '733/33 | ;415583 |
| '733/333 | 0 dqg | ryr ${ }^{\text {d }}$ | ;5145:8( |

Vrxufh= Mrvhsk Shfkpladhudo Wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{d}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrq= ::( e 4<7; D:

Vlqfh 4<7; pduulhg frxsohv kdyh ehhq wr vsolw wkhlu lqfrph iru wd\{ sxusrvhv1 Udwhv vkrzq duh iru pduulhg frxsohv ilolqj mrlqw wd\{ uhwxuqv1

$$
\begin{aligned}
& \text { Lqglylgxdo Lqfrph Wd\{ Sdudphwhuv } \\
& \qquad 4<7904<7:
\end{aligned}
$$



Vrxufh= Mrvhsk Shfkpdaghudo wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1

[^0]Lqglylgxdo Lqfrph wd\{ Sdudphwhuv

$$
4<7704<78
$$

| Wd\{deoh Lqfrph |  |  | Udwh |
| :---: | :---: | :---: | :---: |
| '3 | 0 | '5/333 | 561 |
| '5/333 | 0 | '7/333 | 581 |
| '7/333 | 0 | '9/333 | $5<1$ |
| '9/33 | c | ';/33 | 661 |
| ';/33 | c | '43/33 | 6:1 |
| '43/33 | c | '45/33 | 741 |
| '45/33 | c | '47/33 | 791 |
| '47/33 | c | '49/33 | 831 |
| '49/33 | c | '4;/33 | 861 |
| '4;/33 | c | '53/33 | 891 |
| '53/33 | $c$ | '55/33 | $8<1$ |
| '55/33 | c | '59/33 | 951 |
| '59/33 | c | '65/33 | 981 |
| '65/33 | c | '6;/33 | 9; |
| '6;/33 | c | '77/33 | : 51 |
| '77/33 | c | '83/33 | : 81 |
| '83/33 | c | '93/33 | :; |
| '93/33 | c | ':3/33 | ; 41 |
| ':3/33 | c | ';3/33 | ; 71 |
| ';3/33 | c | '<3/33 | ;: |
| '<3/33 | $c$ | '433/33 | $<31$ |
| '433/33 | c | '483/33 | <5 ( |
| '483/33 | c | '533/33 | <6 1 |
| '533/333 | 0 dqg | ryr. ${ }^{\text {d }}$ | $<7$ ( |

Vrxufh= Mrvhsk Shfkpdadhudo Wd\{ Srblf| Zdvklqjwrq/ GF= Eurrnlqjv Lqvwlwxwlrq/ 4<;:1
${ }^{\text {a }}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrqv= <313 shufhqw iru 4<7704<78 e $4<77 \mathrm{D}$ :


[^0]:    ${ }^{d}$ Vxemhfw wr wkh iroorzlqj pd\{lpxp hiihfwlyh udwh olplwdwlrqv= ;818 shufhqw iru 4<7907:1 e $4<78 \mathrm{D}$ :

