## Eureka Math ${ }^{\text {rw }}$

## Grade 3, Module 5

## Student File_B

Contains Sprint and Fluency, Exit Ticket, and Assessment Materials

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$\begin{array}{llllllllll}10 & 9 & 8 & 7 & 6 & 5 & 4 & 3 & 2 & 1\end{array}$

Sprint and Fluency Packet

Number Correct: $\qquad$

Multiply with Six

| 1. | $1 \times 6=$ |  |
| :---: | :---: | :---: |
| 2. | $6 \times 1=$ |  |
| 3. | $2 \times 6=$ |  |
| 4. | $6 \times 2=$ |  |
| 5. | $3 \times 6=$ |  |
| 6. | $6 \times 3=$ |  |
| 7. | $4 \times 6=$ |  |
| 8. | $6 \times 4=$ |  |
| 9. | $5 \times 6=$ |  |
| 10. | $6 \times 5=$ |  |
| 11. | $6 \times 6=$ |  |
| 12. | $7 \times 6=$ |  |
| 13. | $6 \times 7=$ |  |
| 14. | $8 \times 6=$ |  |
| 15. | $6 \times 8=$ |  |
| 16. | $9 \times 6=$ |  |
| 17. | $6 \times 9=$ |  |
| 18. | $10 \times 6=$ |  |
| 19. | $6 \times 10=$ |  |
| 20. | $6 \times 3=$ |  |
| 21. | $1 \times 6=$ |  |
| 22. | $2 \times 6=$ |  |


| 23. | $10 \times 6=$ |  |
| :---: | :---: | :---: |
| 24. | $9 \times 6=$ |  |
| 25. | $4 \times 6=$ |  |
| 26. | $8 \times 6=$ |  |
| 27. | $3 \times 6=$ |  |
| 28. | $7 \times 6=$ |  |
| 29. | $6 \times 6=$ |  |
| 30. | $6 \times 10=$ |  |
| 31. | $6 \times 5=$ |  |
| 32. | $6 \times 4=$ |  |
| 33. | $6 \times 1=$ |  |
| 34. | $6 \times 9=$ |  |
| 35. | $6 \times 6=$ |  |
| 36. | $6 \times 3=$ |  |
| 37. | $6 \times 2=$ |  |
| 38. | $6 \times 7=$ |  |
| 39. | $6 \times 8=$ |  |
| 40. | $11 \times 6=$ |  |
| 41. | $6 \times 11=$ |  |
| 42. | $12 \times 6=$ |  |
| 43. | $6 \times 12=$ |  |
| 44. | $13 \times 6=$ |  |

Lesson 3: counting unit fractions by drawing pictorial area models.

Number Correct: $\qquad$
Improvement: $\qquad$

## Multiply with Six

| 1. | $6 \times 1=$ |
| :---: | :---: |
| 2. | $1 \times 6=$ |
| 3. | $6 \times 2=$ |
| 4. | $2 \times 6=$ |
| 5. | $6 \times 3=$ |
| 6. | $3 \times 6=$ |
| 7. | $6 \times 4=$ |
| 8. | $4 \times 6=$ |
| 9. | $6 \times 5=$ |
| 10. | $5 \times 6=$ |
| 11. | $6 \times 6=$ |
| 12. | $6 \times 7=$ |
| 13. | $7 \times 6=$ |
| 14. | $6 \times 8=$ |
| 15. | $8 \times 6=$ |
| 16. | $6 \times 9=$ |
| 17. | $9 \times 6=$ |
| 18. | $6 \times 10=$ |
| 19. | $10 \times 6=$ |
| 20. | $1 \times 6=$ |
| 21. | $10 \times 6=$ |
| 22. | $2 \times 6=$ |


| 23. | $9 \times 6=$ |
| :---: | :---: |
| 24. | $3 \times 6=$ |
| 25. | $8 \times 6=$ |
| 26. | $4 \times 6=$ |
| 27. | $7 \times 6=$ |
| 28. | $5 \times 6=$ |
| 29. | $6 \times 6=$ |
| 30. | $6 \times 5=$ |
| 31. | $6 \times 10=$ |
| 32. | $6 \times 1=$ |
| 33. | $6 \times 6=$ |
| 34. | $6 \times 4=$ |
| 35. | $6 \times 9=$ |
| 36. | $6 \times 2=$ |
| 37. | $6 \times 7=$ |
| 38. | $6 \times 3=$ |
| 39. | $6 \times 8=$ |
| 40. | $11 \times 6=$ |
| 41. | $6 \times 11=$ |
| 42. | $12 \times 6=$ |
| 43. | $6 \times 12=$ |
| 44. | $13 \times 6=$ | counting unit fractions by drawing pictorial area models.

## A

Number Correct: $\qquad$

Multiply and Divide by Six

| 1. | $2 \times 6=$ | 23. | $\ldots \times 6=60$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $3 \times 6=$ | 24. | $\ldots \times 6=12$ |  |
| 3. | $4 \times 6=$ | 25. | $\ldots \times 6=18$ |  |
| 4. | $5 \times 6=$ | 26. | $60 \div 6=$ |  |
| 5. | $1 \times 6=$ | 27. | $30 \div 6=$ |  |
| 6. | $12 \div 6=$ | 28. | $6 \div 6=$ |  |
| 7. | $18 \div 6=$ | 29. | $12 \div 6=$ |  |
| 8. | $30 \div 6=$ | 30. | $18 \div 6=$ |  |
| 9. | $6 \div 6=$ | 31. | $\ldots 6=36$ |  |
| 10. | $24 \div 6=$ | 32. | $\ldots 6=42$ |  |
| 11. | $6 \times 6=$ | 33. | $\ldots \times 6=54$ |  |
| 12. | $7 \times 6=$ | 34. | $\ldots 6=48$ |  |
| 13. | $8 \times 6=$ | 35. | $42 \div 6=$ |  |
| 14. | $9 \times 6=$ | 36. | $54 \div 6=$ |  |
| 15. | $10 \times 6=$ | 37. | $36 \div 6=$ |  |
| 16. | $48 \div 6=$ | 38. | $48 \div 6=$ |  |
| 17. | $42 \div 6=$ | 39. | $11 \times 6=$ |  |
| 18. | $54 \div 6=$ | 40. | $66 \div 6=$ |  |
| 19. | $36 \div 6=$ | 41. | $12 \times 6=$ |  |
| 20. | $60 \div 6=$ | 42. | $72 \div 6=$ |  |
| 21. | $\ldots \times 6=30$ | 43. | $14 \times 6=$ |  |
| 22. | $\ldots 6=6$ | 44. | $84 \div 6=$ |  |

Lesson 4: $\quad$ Represent and identify fractional parts of different wholes.

## B

Number Correct: $\qquad$
Improvement: $\qquad$
Multiply and Divide by Six

| 1. | $1 \times 6=$ |  |
| :---: | :---: | :---: |
| 2. | $2 \times 6=$ |  |
| 3. | $3 \times 6=$ |  |
| 4. | $4 \times 6=$ |  |
| 5. | $5 \times 6=$ |  |
| 6. | $18 \div 6=$ |  |
| 7. | $12 \div 6=$ |  |
| 8. | $24 \div 6=$ |  |
| 9. | $6 \div 6=$ |  |
| 10. | $30 \div 6=$ |  |
| 11. | $10 \times 6=$ |  |
| 12. | $6 \times 6=$ |  |
| 13. | $7 \times 6=$ |  |
| 14. | $8 \times 6=$ |  |
| 15. | $9 \times 6=$ |  |
| 16. | $42 \div 6=$ |  |
| 17. | $36 \div 6=$ |  |
| 18. | $48 \div 6=$ |  |
| 19. | $60 \div 6=$ |  |
| 20. | $54 \div 6=$ |  |
| 21. | $\ldots \times 6=6$ |  |
| 22. | $\ldots \times 6=30$ |  |


| 23. | $\ldots \times 6=12$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots \ldots 6=60$ |  |
| 25. | $\ldots \times 6=18$ |  |
| 26. | $12 \div 6=$ |  |
| 27. | $6 \div 6=$ |  |
| 28. | $60 \div 6=$ |  |
| 29. | $30 \div 6=$ |  |
| 30. | $18 \div 6=$ |  |
| 31. | $\ldots \times 6=18$ |  |
| 32. | $\ldots \times 6=24$ |  |
| 33. | $\ldots \times 6=54$ |  |
| 34. | $\ldots \times 6=42$ |  |
| 35. | $48 \div 6=$ |  |
| 36. | $54 \div 6=$ |  |
| 37. | $36 \div 6=$ |  |
| 38. | $42 \div 6=$ |  |
| 39. | $11 \times 6=$ |  |
| 40. | $66 \div 6=$ |  |
| 41. | $12 \times 6=$ |  |
| 42. | $72 \div 6=$ |  |
| 43. | $13 \times 6=$ |  |
| 44. | $78 \div 6=$ |  |

Lesson 4: $\quad$ Represent and identify fractional parts of different wholes.

Number Correct: $\qquad$

Multiply with Seven

| 1. | $1 \times 7=$ | 23. | $10 \times 7=$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $7 \times 1=$ | 24. | $9 \times 7=$ |  |
| 3. | $2 \times 7=$ | 25. | $4 \times 7=$ |  |
| 4. | $7 \times 2=$ | 26. | $8 \times 7=$ |  |
| 5. | $3 \times 7=$ | 27. | $7 \times 3=$ |  |
| 6. | $7 \times 3=$ | 28. | $7 \times 7=$ |  |
| 7. | $4 \times 7=$ | 29. | $6 \times 7=$ |  |
| 8. | $7 \times 4=$ | 30. | $7 \times 10=$ |  |
| 9. | $5 \times 7=$ | 31. | $7 \times 5=$ |  |
| 10. | $7 \times 5=$ | 32. | $7 \times 6=$ |  |
| 11. | $6 \times 7=$ | 33. | $7 \times 1=$ |  |
| 12. | $7 \times 6=$ | 34. | $7 \times 9=$ |  |
| 13. | $7 \times 7=$ | 35. | $7 \times 4=$ |  |
| 14. | $8 \times 7=$ | 36. | $7 \times 3=$ |  |
| 15. | $7 \times 8=$ | 37. | $7 \times 2=$ |  |
| 16. | $9 \times 7=$ | 38. | $7 \times 7=$ |  |
| 17. | $7 \times 9=$ | 39. | $7 \times 8=$ |  |
| 18. | $10 \times 7=$ | 40. | $11 \times 7=$ |  |
| 19. | $7 \times 10=$ | 41. | $7 \times 11=$ |  |
| 20. | $7 \times 3=$ | 42. | $12 \times 7=$ |  |
| 21. | $1 \times 7=$ | 43. | $7 \times 12=$ |  |
| 22. | $2 \times 7=$ | 44. | $13 \times 7=$ |  |

Lesson 6:
Build non-unit fractions less than one whole from unit fractions.

## B

Number Correct: $\qquad$
Improvement: $\qquad$
Multiply with Seven

| 1. | $7 \times 1=$ |  |
| :---: | :---: | :---: |
| 2. | $1 \times 7=$ |  |
| 3. | $7 \times 2=$ |  |
| 4. | $2 \times 7=$ |  |
| 5. | $7 \times 3=$ |  |
| 6. | $3 \times 7=$ |  |
| 7. | $7 \times 4=$ |  |
| 8. | $4 \times 7=$ |  |
| 9. | $7 \times 5=$ |  |
| 10. | $5 \times 7=$ |  |
| 11. | $7 \times 6=$ |  |
| 12. | $6 \times 7=$ |  |
| 13. | $7 \times 7=$ |  |
| 14. | $7 \times 8=$ |  |
| 15. | $8 \times 7=$ |  |
| 16. | $7 \times 9=$ |  |
| 17. | $9 \times 7=$ |  |
| 18. | $7 \times 10=$ |  |
| 19. | $10 \times 7=$ |  |
| 20. | $1 \times 7=$ |  |
| 21. | $10 \times 7=$ |  |
| 22. | $2 \times 7=$ |  |


| 23. | $9 \times 7=$ |  |
| :---: | :---: | :---: |
| 24. | $3 \times 7=$ |  |
| 25. | $8 \times 7=$ |  |
| 26. | $4 \times 7=$ |  |
| 27. | $7 \times 7=$ |  |
| 28. | $5 \times 7=$ |  |
| 29. | $6 \times 7=$ |  |
| 30. | $7 \times 5=$ |  |
| 31. | $7 \times 10=$ |  |
| 32. | $7 \times 1=$ |  |
| 33. | $7 \times 6=$ |  |
| 34. | $7 \times 4=$ |  |
| 35. | $7 \times 9=$ |  |
| 36. | $7 \times 2=$ |  |
| 37. | $7 \times 7=$ |  |
| 38. | $7 \times 3=$ |  |
| 39. | $7 \times 8=$ |  |
| 40. | $11 \times 7=$ |  |
| 41. | $7 \times 11=$ |  |
| 42. | $12 \times 7=$ |  |
| 43. | $7 \times 12=$ |  |
| 44. | $13 \times 7=$ |  |

Lesson 6:

Number Correct: $\qquad$

Multiply and Divide by Seven

| 1. | $2 \times 7=$ | 23. | $\ldots \times 7=70$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $3 \times 7=$ | 24. | $\ldots \times 7=14$ |  |
| 3. | $4 \times 7=$ | 25. | $\ldots \times 7=21$ |  |
| 4. | $5 \times 7=$ | 26. | $70 \div 7=$ |  |
| 5. | $1 \times 7=$ | 27. | $35 \div 7=$ |  |
| 6. | $14 \div 7=$ | 28. | $7 \div 7=$ |  |
| 7. | $21 \div 7=$ | 29. | $14 \div 7=$ |  |
| 8. | $35 \div 7=$ | 30. | $21 \div 7=$ |  |
| 9. | $7 \div 7=$ | 31. | $\ldots \times 7=42$ |  |
| 10. | $28 \div 7=$ | 32. | $\ldots \times 7=49$ |  |
| 11. | $6 \times 7=$ | 33. | $\ldots \times 7=63$ |  |
| 12. | $7 \times 7=$ | 34. | $\ldots \times 7=56$ |  |
| 13. | $8 \times 7=$ | 35. | $49 \div 7=$ |  |
| 14. | $9 \times 7=$ | 36. | $63 \div 7=$ |  |
| 15. | $10 \times 7=$ | 37. | $42 \div 7=$ |  |
| 16. | $56 \div 7=$ | 38. | $56 \div 7=$ |  |
| 17. | $49 \div 7=$ | 39. | $11 \times 7=$ |  |
| 18. | $63 \div 7=$ | 40. | $77 \div 7=$ |  |
| 19. | $42 \div 7=$ | 41. | $12 \times 7=$ |  |
| 20. | $70 \div 7=$ | 42. | $84 \div 7=$ |  |
| 21. | $\ldots \times 7=35$ | 43. | $14 \times 7=$ |  |
| 22. | $\ldots \times 7=7$ | 44. | $98 \div 7=$ |  |

Lesson 7: Identify and represent shaded and non-shaded parts of one whole as fractions.

Number Correct: $\qquad$
Improvement: $\qquad$
Multiply and Divide by Seven

| 23. | $\ldots \times 7=14$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots$ |  |
| 25. | $\ldots \times 7=21$ |  |
| 26. | $14 \div 7=$ |  |
| 27. | $7 \div 7=$ |  |
| 28. | $70 \div 7=$ |  |
| 29. | $35 \div 7=$ |  |
| 30. | $21 \div 7=$ |  |
| 31. | $\ldots \times 7=21$ |  |
| 32. | $\ldots \times 7=28$ |  |
| 33. | $\ldots \times 7=63$ |  |
| 34. | $\ldots \times 7=49$ |  |
| 35. | $56 \div 7=$ |  |
| 36. | $63 \div 7=$ |  |
| 37. | $42 \div 7=$ |  |
| 38. | $49 \div 7=$ |  |
| 39. | $11 \times 7=$ |  |
| 40. | $77 \div 7=$ |  |
| 41. | $12 \times 7=$ |  |
| 42. | $84 \div 7=$ |  |
| 43. | $13 \times 7=$ |  |
| 44. | $91 \div 7=$ |  |


| 1. | $1 \times 7=$ |  |
| :---: | :---: | :---: |
| 2. | $2 \times 7=$ |  |
| 3. | $3 \times 7=$ |  |
| 4. | $4 \times 7=$ |  |
| 5. | $5 \times 7=$ |  |
| 6. | $21 \div 7=$ |  |
| 7. | $14 \div 7=$ |  |
| 8. | $28 \div 7=$ |  |
| 9. | $7 \div 7=$ |  |
| 10. | $35 \div 7=$ |  |
| 11. | $10 \times 7=$ |  |
| 12. | $6 \times 7=$ |  |
| 13. | $7 \times 7=$ |  |
| 14. | $8 \times 7=$ |  |
| 15. | $9 \times 7=$ |  |
| 16. | $49 \div 7=$ |  |
| 17. | $42 \div 7=$ |  |
| 18. | $56 \div 7=$ |  |
| 19. | $70 \div 7=$ |  |
| 20. | $63 \div 7=$ |  |
| 21. | $\ldots \times 7=7$ |  |
| 22. | $\ldots 7=35$ |  |

Lesson 7:

A
Number Correct: $\qquad$

Identify Fractions.
 Lesson 8: $\quad$ Represent parts of one whole as fractions with number bonds.

## B

Number Correct: $\qquad$
Improvement: $\qquad$
Identify Fractions.

| 1. | (1) | , |
| :---: | :---: | :---: |
| 2 | Q | , |
| 3. | $\square 1 \square$ | , |
| 4 | $\ominus$ | , |
| 5 | © | , |
| ¢ | $\square \square$ | , |
| 7 | (1) | , |
| 8. | Q | , |
| 9. | $\square 10$ | , |
| ${ }^{10}$ | $\theta$ | , |
| ${ }^{11}$ | $\square$ | , |
| 12 | $\square 1$ | , |
| ${ }^{13}$ | $\square$ | , |
| ${ }^{14}$ | $\square \square$ | , |
| ${ }_{15}$ | $\square \square$ | , |
| ${ }^{16}$ | $\square$ | , |
| ${ }^{17}$ | $\square$ | , |
| ${ }^{18}$ | $\oplus$ | , |
| ${ }^{19}$ | $\oplus$ | , |
| 20 | $\oplus$ | , |
| 21 | $\oplus$ | , |
| ${ }_{22}$ | $\oplus$ | , | Lesson 8: Represent parts of one whole as fractions with number bonds.

Number Correct: $\qquad$

Multiply with Eight

| 1. | $8 \times 1=$ |  |
| :---: | :---: | :---: |
| 2. | $1 \times 8=$ |  |
| 3. | $8 \times 2=$ |  |
| 4. | $2 \times 8=$ |  |
| 5. | $8 \times 3=$ |  |
| 6. | $3 \times 8=$ |  |
| 7. | $8 \times 4=$ |  |
| 8. | $4 \times 8=$ |  |
| 9. | $8 \times 5=$ |  |
| 10. | $5 \times 8=$ |  |
| 11. | $8 \times 6=$ |  |
| 12. | $6 \times 8=$ |  |
| 13. | $8 \times 7=$ |  |
| 14. | $7 \times 8=$ |  |
| 15. | $8 \times 8=$ |  |
| 16. | $8 \times 9=$ |  |
| 17. | $9 \times 8=$ |  |
| 18. | $8 \times 10=$ |  |
| 19. | $10 \times 8=$ |  |
| 20. | $1 \times 8=$ |  |
| 21. | $10 \times 8=$ |  |
| 22. | $2 \times 8=$ |  |


| 23. | $9 \times 8=$ |  |
| :---: | :---: | :---: |
| 24. | $3 \times 8=$ |  |
| 25. | $8 \times 8=$ |  |
| 26. | $4 \times 8=$ |  |
| 27. | $7 \times 8=$ |  |
| 28. | $5 \times 8=$ |  |
| 29. | $6 \times 8=$ |  |
| 30. | $8 \times 5=$ |  |
| 31. | $8 \times 10=$ |  |
| 32. | $8 \times 1=$ |  |
| 33. | $8 \times 6=$ |  |
| 34. | $8 \times 4=$ |  |
| 35. | $8 \times 9=$ |  |
| 36. | $8 \times 2=$ |  |
| 37. | $8 \times 7=$ |  |
| 38. | $8 \times 3=$ |  |
| 39. | $8 \times 8=$ |  |
| 40. | $11 \times 8=$ |  |
| 41. | $8 \times 11=$ |  |
| 42. | $12 \times 8=$ |  |
| 43. | $8 \times 12=$ |  |
| 44. | $13 \times 8=$ |  | Lesson 9: Build and write fractions greater than one whole using unit fractions.

## B

Number Correct: $\qquad$
Improvement: $\qquad$
Multiply with Eight

| 1. | $1 \times 8=$ |  |
| :---: | :---: | :---: |
| 2. | $8 \times 1=$ |  |
| 3. | $2 \times 8=$ |  |
| 4. | $8 \times 2=$ |  |
| 5. | $3 \times 8=$ |  |
| 6. | $8 \times 3=$ |  |
| 7. | $4 \times 8=$ |  |
| 8. | $8 \times 4=$ |  |
| 9. | $5 \times 8=$ |  |
| 10. | $8 \times 5=$ |  |
| 11. | $6 \times 8=$ |  |
| 12. | $8 \times 6=$ |  |
| 13. | $7 \times 8=$ |  |
| 14. | $8 \times 7=$ |  |
| 15. | $8 \times 8=$ |  |
| 16. | $9 \times 8=$ |  |
| 17. | $8 \times 9=$ |  |
| 18. | $10 \times 8=$ |  |
| 19. | $8 \times 10=$ |  |
| 20. | $8 \times 3=$ |  |
| 21. | $1 \times 8=$ |  |
| 22. | $2 \times 8=$ |  |


| 23. | $10 \times 8=$ |  |
| :---: | :---: | :---: |
| 24. | $9 \times 8=$ |  |
| 25. | $4 \times 8=$ |  |
| 26. | $8 \times 8=$ |  |
| 27. | $8 \times 3=$ |  |
| 28. | $7 \times 8=$ |  |
| 29. | $6 \times 8=$ |  |
| 30. | $8 \times 10=$ |  |
| 31. | $8 \times 5=$ |  |
| 32. | $8 \times 6=$ |  |
| 33. | $8 \times 1=$ |  |
| 34. | $8 \times 9=$ |  |
| 35. | $8 \times 4=$ |  |
| 36. | $8 \times 3=$ |  |
| 37. | $8 \times 2=$ |  |
| 38. | $8 \times 7=$ |  |
| 39. | $8 \times 8=$ |  |
| 40. | $11 \times 8=$ |  |
| 41. | $8 \times 11=$ |  |
| 42. | $12 \times 8=$ |  |
| 43. | $8 \times 12=$ |  |
| 44. | $13 \times 8=$ |  | Lesson 9: Build and write fractions greater than one whole using unit fractions.

$\qquad$

Multiply and Divide by Eight

| 1. | $2 \times 8=$ |  |
| :---: | :---: | :---: |
| 2. | $3 \times 8=$ |  |
| 3. | $4 \times 8=$ |  |
| 4. | $5 \times 8=$ |  |
| 5. | $1 \times 8=$ |  |
| 6. | $16 \div 8=$ |  |
| 7. | $24 \div 8=$ |  |
| 8. | $40 \div 8=$ |  |
| 9. | $8 \div 8=$ |  |
| 10. | $32 \div 8=$ |  |
| 11. | $6 \times 8=$ |  |
| 12. | $7 \times 8=$ |  |
| 13. | $8 \times 8=$ |  |
| 14. | $9 \times 8=$ |  |
| 15. | $10 \times 8=$ |  |
| 16. | $64 \div 8=$ |  |
| 17. | $56 \div 8=$ |  |
| 18. | $72 \div 8=$ |  |
| 19. | $48 \div 8=$ |  |
| 20. | $80 \div 8=$ |  |
| 21. | $\ldots 8=40$ |  |
| 22. | $\ldots 8=8$ |  |


| 23. | $\ldots \times 8=80$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots 8=16$ |  |
| 25. | $\ldots \times 8=24$ |  |
| 26. | $80 \div 8=$ |  |
| 27. | $40 \div 8=$ |  |
| 28. | $8 \div 8=$ |  |
| 29. | $16 \div 8=$ |  |
| 30. | $24 \div 8=$ |  |
| 31. | $\ldots \times 8=48$ |  |
| 32. | $\ldots \times 8=56$ |  |
| 33. | $\ldots \times 8=72$ |  |
| 34. | $\ldots \ldots 8=64$ |  |
| 35. | $56 \div 8=$ |  |
| 36. | $72 \div 8=$ |  |
| 37. | $48 \div 8=$ |  |
| 38. | $64 \div 8=$ |  |
| 39. | $11 \times 8=$ |  |
| 40. | $88 \div 8=$ |  |
| 41. | $12 \times 8=$ |  |
| 42. | $96 \div 8=$ |  |
| 43. | $14 \times 8=$ |  |
| 44. | $112 \div 8=$ |  |

Number Correct: $\qquad$
Improvement: $\qquad$
Multiply and Divide by Eight

| 1. | $1 \times 8=$ |  |
| :---: | :---: | :---: |
| 2. | $2 \times 8=$ |  |
| 3. | $3 \times 8=$ |  |
| 4. | $4 \times 8=$ |  |
| 5. | $5 \times 8=$ |  |
| 6. | $24 \div 8=$ |  |
| 7. | $16 \div 8=$ |  |
| 8. | $32 \div 8=$ |  |
| 9. | $8 \div 8=$ |  |
| 10. | $40 \div 8=$ |  |
| 11. | $10 \times 8=$ |  |
| 12. | $6 \times 8=$ |  |
| 13. | $7 \times 8=$ |  |
| 14. | $8 \times 8=$ |  |
| 15. | $9 \times 8=$ |  |
| 16. | $56 \div 8=$ |  |
| 17. | $48 \div 8=$ |  |
| 18. | $64 \div 8=$ |  |
| 19. | $80 \div 8=$ |  |
| 20. | $72 \div 8=$ |  |
| 21. | $\ldots 8=8$ |  |
| 22. | $\ldots 8=40$ |  |


| 23. | $\ldots 8=16$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots \times 8=80$ |  |
| 25. | $\ldots \times 8=24$ |  |
| 26. | $16 \div 8=$ |  |
| 27. | $8 \div 8=$ |  |
| 28. | $80 \div 8=$ |  |
| 29. | $40 \div 8=$ |  |
| 30. | $24 \div 8=$ |  |
| 31. | $\ldots \times 8=24$ |  |
| 32. | $\ldots \times 8=32$ |  |
| 33. | $\ldots \times 8=72$ |  |
| 34. | $\ldots \times 8=56$ |  |
| 35. | $64 \div 8=$ |  |
| 36. | $72 \div 8=$ |  |
| 37. | $48 \div 8=$ |  |
| 38. | $56 \div 8=$ |  |
| 39. | $11 \times 8=$ |  |
| 40. | $88 \div 8=$ |  |
| 41. | $12 \times 8=$ |  |
| 42. | $96 \div 8=$ |  |
| 43. | $13 \times 8=$ |  |
| 44. | $104 \div 8=$ |  |

## A

Number Correct: $\qquad$

Multiply with Nine

| 1. | $9 \times 1=$ |  |
| :---: | :---: | :---: |
| 2. | $1 \times 9=$ |  |
| 3. | $9 \times 2=$ |  |
| 4. | $2 \times 9=$ |  |
| 5. | $9 \times 3=$ |  |
| 6. | $3 \times 9=$ |  |
| 7. | $9 \times 4=$ |  |
| 8. | $4 \times 9=$ |  |
| 9. | $9 \times 5=$ |  |
| 10. | $5 \times 9=$ |  |
| 11. | $9 \times 6=$ |  |
| 12. | $6 \times 9=$ |  |
| 13. | $9 \times 7=$ |  |
| 14. | $7 \times 9=$ |  |
| 15. | $9 \times 8=$ |  |
| 16. | $8 \times 9=$ |  |
| 17. | $9 \times 9=$ |  |
| 18. | $9 \times 10=$ |  |
| 19. | $10 \times 9=$ |  |
| 20. | $1 \times 9=$ |  |
| 21. | $10 \times 9=$ |  |
| 22. | $2 \times 9=$ |  |


| 23. | $9 \times 9=$ |  |
| :---: | :---: | :---: |
| 24. | $3 \times 9=$ |  |
| 25. | $8 \times 9=$ |  |
| 26. | $4 \times 9=$ |  |
| 27. | $7 \times 9=$ |  |
| 28. | $5 \times 9=$ |  |
| 29. | $6 \times 9=$ |  |
| 30. | $9 \times 5=$ |  |
| 31. | $9 \times 10=$ |  |
| 32. | $9 \times 1=$ |  |
| 33. | $9 \times 6=$ |  |
| 34. | $9 \times 4=$ |  |
| 35. | $9 \times 9=$ |  |
| 36. | $9 \times 2=$ |  |
| 37. | $9 \times 7=$ |  |
| 38. | $9 \times 3=$ |  |
| 39. | $9 \times 8=$ |  |
| 40. | $11 \times 9=$ |  |
| 41. | $9 \times 11=$ |  |
| 42. | $12 \times 9=$ |  |
| 43. | $9 \times 12=$ |  |
| 44. | $13 \times 9=$ |  |

Lesson 12: Specify the corresponding whole when presented with one equal part.

B
Multiply with Nine

| 1. | $1 \times 9=$ |  |
| :---: | :---: | :---: |
| 2. | $9 \times 1=$ |  |
| 3. | $2 \times 9=$ |  |
| 4. | $9 \times 2=$ |  |
| 5. | $3 \times 9=$ |  |
| 6. | $9 \times 3=$ |  |
| 7. | $4 \times 9=$ |  |
| 8. | $9 \times 4=$ |  |
| 9. | $5 \times 9=$ |  |
| 10. | $9 \times 5=$ |  |
| 11. | $6 \times 9=$ |  |
| 12. | $9 \times 6=$ |  |
| 13. | $7 \times 9=$ |  |
| 14. | $9 \times 7=$ |  |
| 15. | $8 \times 9=$ |  |
| 16. | $9 \times 8=$ |  |
| 17. | $9 \times 9=$ |  |
| 18. | $10 \times 9=$ |  |
| 19. | $9 \times 10=$ |  |
| 20. | $9 \times 3=$ |  |
| 21. | $1 \times 9=$ |  |
| 22. | $2 \times 9=$ |  |

Number Correct: $\qquad$
Improvement: $\qquad$

| 23. | $10 \times 9=$ |  |
| :---: | :---: | :---: |
| 24. | $9 \times 9=$ |  |
| 25. | $4 \times 9=$ |  |
| 26. | $8 \times 9=$ |  |
| 27. | $3 \times 9=$ |  |
| 28. | $7 \times 9=$ |  |
| 29. | $6 \times 9=$ |  |
| 30. | $9 \times 10=$ |  |
| 31. | $9 \times 5=$ |  |
| 32. | $9 \times 6=$ |  |
| 33. | $9 \times 1=$ |  |
| 34. | $9 \times 9=$ |  |
| 35. | $9 \times 4=$ |  |
| 36. | $9 \times 3=$ |  |
| 37. | $9 \times 2=$ |  |
| 38. | $9 \times 7=$ |  |
| 39. | $9 \times 8=$ |  |
| 40. | $11 \times 9=$ |  |
| 41. | $9 \times 11=$ |  |
| 42. | $12 \times 9=$ |  |
| 43. | $9 \times 12=$ |  |
| 44. | $13 \times 9=$ |  |

Lesson 12: Specify the corresponding whole when presented with one equal part.
$\qquad$

Multiply and Divide by Nine

| 1. | $2 \times 9=$ |  |
| :---: | :---: | :---: |
| 2. | $3 \times 9=$ |  |
| 3. | $4 \times 9=$ |  |
| 4. | $5 \times 9=$ |  |
| 5. | $1 \times 9=$ |  |
| 6. | $18 \div 9=$ |  |
| 7. | $27 \div 9=$ |  |
| 8. | $45 \div 9=$ |  |
| 9. | $9 \div 9=$ |  |
| 10. | $36 \div 9=$ |  |
| 11. | $6 \times 9=$ |  |
| 12. | $7 \times 9=$ |  |
| 13. | $8 \times 9=$ |  |
| 14. | $9 \times 9=$ |  |
| 15. | $10 \times 9=$ |  |
| 16. | $72 \div 9=$ |  |
| 17. | $63 \div 9=$ |  |
| 18. | $81 \div 9=$ |  |
| 19. | $54 \div 9=$ |  |
| 20. | $90 \div 9=$ |  |
| 21. | $\ldots \times 9=45$ |  |
| 22. | $\ldots \times 9=9$ |  |


| 23. | $\ldots \times 9=90$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots$ _ $\times 9=18$ |  |
| 25. | $\ldots 9=27$ |  |
| 26. | $90 \div 9=$ |  |
| 27. | $45 \div 9=$ |  |
| 28. | $9 \div 9=$ |  |
| 29. | $18 \div 9=$ |  |
| 30. | $27 \div 9=$ |  |
| 31. | $\ldots \times 9=54$ |  |
| 32. | $\ldots \times 9=63$ |  |
| 33. | $\ldots \times 9=81$ |  |
| 34. | $\ldots \times 9=72$ |  |
| 35. | $63 \div 9=$ |  |
| 36. | $81 \div 9=$ |  |
| 37. | $54 \div 9=$ |  |
| 38. | $72 \div 9=$ |  |
| 39. | $11 \times 9=$ |  |
| 40. | $99 \div 9=$ |  |
| 41. | $12 \times 9=$ |  |
| 42. | $108 \div 9=$ |  |
| 43. | $14 \times 9=$ |  |
| 44. | $126 \div 9=$ |  |

B
Number Correct: $\qquad$
Improvement: $\qquad$
Multiply and Divide by Nine

| 1. | $1 \times 9=$ |  |
| :---: | :---: | :---: |
| 2. | $2 \times 9=$ |  |
| 3. | $3 \times 9=$ |  |
| 4. | $4 \times 9=$ |  |
| 5. | $5 \times 9=$ |  |
| 6. | $27 \div 9=$ |  |
| 7. | $18 \div 9=$ |  |
| 8. | $36 \div 9=$ |  |
| 9. | $9 \div 9=$ |  |
| 10. | $45 \div 9=$ |  |
| 11. | $10 \times 9=$ |  |
| 12. | $6 \times 9=$ |  |
| 13. | $7 \times 9=$ |  |
| 14. | $8 \times 9=$ |  |
| 15. | $9 \times 9=$ |  |
| 16. | $63 \div 9=$ |  |
| 17. | $54 \div 9=$ |  |
| 18. | $72 \div 9=$ |  |
| 19. | $90 \div 9=$ |  |
| 20. | $81 \div 9=$ |  |
| 21. | $\ldots \times 9=9$ |  |
| 22. | $\ldots \times 9=45$ |  |


| 23. | $\ldots \times 9=18$ |  |
| :---: | :---: | :---: |
| 24. | $\ldots \times 9=90$ |  |
| 25. | $\ldots \times 9=27$ |  |
| 26. | $18 \div 9=$ |  |
| 27. | $9 \div 9=$ |  |
| 28. | $90 \div 9=$ |  |
| 29. | $45 \div 9=$ |  |
| 30. | $27 \div 9=$ |  |
| 31. | $\ldots \times 9=27$ |  |
| 32. | $\ldots \times 9=36$ |  |
| 33. | $\ldots \times 9=81$ |  |
| 34. | $\ldots \times 9=63$ |  |
| 35. | $72 \div 9=$ |  |
| 36. | $81 \div 9=$ |  |
| 37. | $54 \div 9=$ |  |
| 38. | $63 \div 9=$ |  |
| 39. | $11 \times 9=$ |  |
| 40. | $99 \div 9=$ |  |
| 41. | $12 \times 9=$ |  |
| 42. | $108 \div 9=$ |  |
| 43. | $13 \times 9=$ |  |
| 44. | $117 \div 9=$ |  |

Number Correct: $\qquad$

Division

| 1. | $3 \div 3=$ |  |
| :---: | :---: | :---: |
| 2. | $4 \div 4=$ |  |
| 3. | $5 \div 5=$ |  |
| 4. | $19 \div 19=$ |  |
| 5. | $0 \div 1=$ |  |
| 6. | $0 \div 2=$ |  |
| 7. | $0 \div 3=$ |  |
| 8. | $0 \div 19=$ |  |
| 9. | $6 \div 3=$ |  |
| 10. | $9 \div 3=$ |  |
| 11. | $12 \div 3=$ |  |
| 12. | $15 \div 3=$ |  |
| 13. | $4 \div 2=$ |  |
| 14. | $6 \div 2=$ |  |
| 15. | $8 \div 2=$ |  |
| 16. | $10 \div 2=$ |  |
| 17. | $18 \div 3=$ |  |
| 18. | $12 \div 2=$ |  |
| 19. | $21 \div 3=$ |  |
| 20. | $14 \div 2=$ |  |
| 21. | $20 \div 10=$ |  |
| 22. | $20 \div 2=$ |  |


| 23. | $24 \div 3=$ |  |
| :---: | :---: | :---: |
| 24. | $16 \div 2=$ |  |
| 25. | $30 \div 10=$ |  |
| 26. | $30 \div 3=$ |  |
| 27. | $27 \div 3=$ |  |
| 28. | $18 \div 2=$ |  |
| 29. | $40 \div 10=$ |  |
| 30. | $40 \div 4=$ |  |
| 31. | $20 \div 4=$ |  |
| 32. | $20 \div 5=$ |  |
| 33. | $24 \div 4=$ |  |
| 34. | $30 \div 5=$ |  |
| 35. | $28 \div 4=$ |  |
| 36. | $40 \div 5=$ |  |
| 37. | $32 \div 4=$ |  |
| 38. | $45 \div 5=$ |  |
| 39. | $44 \div 4=$ |  |
| 40. | $36 \div 4=$ |  |
| 41. | $48 \div 6=$ |  |
| 42. | $63 \div 7=$ |  |
| 43. | $64 \div 8=$ |  |
| 44. | $72 \div 9=$ |  |

Lesson 17: Practice placing various fractions on the number line.

Number Correct: $\qquad$
Improvement: $\qquad$
Division

| 1. | $2 \div 2=$ |  |
| :---: | :---: | :---: |
| 2. | $3 \div 3=$ |  |
| 3. | $4 \div 4=$ |  |
| 4. | $17 \div 17=$ |  |
| 5. | $0 \div 2=$ |  |
| 6. | $0 \div 3=$ |  |
| 7. | $0 \div 4=$ |  |
| 8. | $0 \div 17=$ |  |
| 9. | $4 \div 2=$ |  |
| 10. | $6 \div 2=$ |  |
| 11. | $8 \div 2=$ |  |
| 12. | $10 \div 2=$ |  |
| 13. | $6 \div 3=$ |  |
| 14. | $9 \div 3=$ |  |
| 15. | $12 \div 3=$ |  |
| 16. | $15 \div 3=$ |  |
| 17. | $12 \div 2=$ |  |
| 18. | $18 \div 3=$ |  |
| 19. | $14 \div 2=$ |  |
| 20. | $21 \div 3=$ |  |
| 21. | $20 \div 2=$ |  |
| 22. | $20 \div 10=$ |  |


| 23. | $16 \div 2=$ |  |
| :---: | :---: | :---: |
| 24. | $24 \div 3=$ |  |
| 25. | $30 \div 3=$ |  |
| 26. | $30 \div 10=$ |  |
| 27. | $18 \div 2=$ |  |
| 28. | $27 \div 3=$ |  |
| 29. | $40 \div 4=$ |  |
| 30. | $40 \div 10=$ |  |
| 31. | $20 \div 5=$ |  |
| 32. | $20 \div 4=$ |  |
| 33. | $30 \div 5=$ |  |
| 34. | $24 \div 4=$ |  |
| 35. | $40 \div 5=$ |  |
| 36. | $28 \div 4=$ |  |
| 37. | $45 \div 5=$ |  |
| 38. | $32 \div 4=$ |  |
| 39. | $55 \div 5=$ |  |
| 40. | $36 \div 4=$ |  |
| 41. | $54 \div 6=$ |  |
| 42. | $56 \div 7=$ |  |
| 43. | $72 \div 8=$ |  |
| 44. | $63 \div 9=$ |  | Lesson 17: Practice placing various fractions on the number line.

Number Correct: $\qquad$

Express Fractions as Whole Numbers

| 1. | $2 / 1=$ | 23. | $6 / 3=$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $2 / 2=$ | 24. | $3 / 3=$ |  |
| 3. | $4 / 2=$ | 25. | $3 / 1=$ |  |
| 4. | $6 / 2=$ | 26. | $9 / 3=$ |  |
| 5. | $10 / 2=$ | 27. | $16 / 4=$ |  |
| 6. | $8 / 2=$ | 28. | $20 / 4=$ |  |
| 7. | $5 / 1=$ | 29. | $12 / 3=$ |  |
| 8. | $5 / 5=$ | 30. | $15 / 3=$ |  |
| 9. | $10 / 5=$ | 31. | $70 / 10=$ |  |
| 10. | $15 / 5=$ | 32. | $12 / 2=$ |  |
| 11. | $25 / 5=$ | 33. | $14 / 2=$ |  |
| 12. | $20 / 5=$ | 34. | $90 / 10=$ |  |
| 13. | $10 / 10=$ | 35. | $30 / 5=$ |  |
| 14. | $50 / 10=$ | 36. | $35 / 5=$ |  |
| 15. | $30 / 10=$ | 37. | $60 / 10=$ |  |
| 16. | $10 / 1$ = | 38. | $18 / 2=$ |  |
| 17. | 20/10 $=$ | 39. | $40 / 5=$ |  |
| 18. | $40 / 10=$ | 40. | $80 / 10=$ |  |
| 19. | $8 / 4=$ | 41. | $16 / 2=$ |  |
| 20. | $4 / 4=$ | 42. | $45 / 5=$ |  |
| 21. | $4 / 1=$ | 43. | $27 / 3=$ |  |
| 22. | $12 / 4=$ | 44. | $32 / 4=$ |  |

Number Correct: $\qquad$
Improvement: $\qquad$
Express Fractions as Whole Numbers

| 1. | $5 / 1=$ | 23. | $8 / 4=$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $5 / 5=$ | 24. | $4 / 4=$ |  |
| 3. | $10 / 5=$ | 25. | $4 / 1=$ |  |
| 4. | $15 / 5=$ | 26. | $12 / 4=$ |  |
| 5. | $25 / 5=$ | 27. | $12 / 3=$ |  |
| 6. | $20 / 5=$ | 28. | $15 / 3=$ |  |
| 7. | $2 / 1=$ | 29. | $16 / 4=$ |  |
| 8. | $2 / 2=$ | 30. | $20 / 4=$ |  |
| 9. | $4 / 2=$ | 31. | $90 / 10=$ |  |
| 10. | $6 / 2=$ | 32. | $30 / 5=$ |  |
| 11. | $10 / 2=$ | 33. | $35 / 5=$ |  |
| 12. | $8 / 2=$ | 34. | $70 / 10=$ |  |
| 13. | $10 / 1=$ | 35. | $12 / 2=$ |  |
| 14. | $10 / 10=$ | 36. | $14 / 2=$ |  |
| 15. | $50 / 10=$ | 37. | $80 / 10=$ |  |
| 16. | $30 / 10=$ | 38. | $45 / 5=$ |  |
| 17. | $20 / 10=$ | 39. | $16 / 2=$ |  |
| 18. | $40 / 10=$ | 40. | $60 / 10=$ |  |
| 19. | $6 / 3=$ | 41. | $18 / 2=$ |  |
| 20. | $3 / 3=$ | 42. | $40 / 5=$ |  |
| 21. | $3 / 1=$ | 43. | $36 / 4=$ |  |
| 22. | $9 / 3=$ | 44. | $24 / 3=$ |  |

Lesson 19: Understand distance and position on the number line as strategies for comparing fractions. (Optional)

Multiply.

multiply by 7 (1-5)

Lesson 20: though not necessarily the same shape.

## A

Number Correct: $\qquad$

Add by Six

| 1. | $0+6=$ | 23. | $7+6=$ |
| :---: | :---: | :---: | :---: |
| 2. | $1+6=$ | 24. | $17+6=$ |
| 3. | $2+6=$ | 25. | $27+6=$ |
| 4. | $3+6=$ | 26. | $37+6=$ |
| 5. | $4+6=$ | 27. | $47+6=$ |
| 6. | $6+4=$ | 28. | $77+6=$ |
| 7. | $6+3=$ | 29. | $8+6=$ |
| 8. | $6+2=$ | 30. | $18+6=$ |
| 9. | $6+1=$ | 31. | $28+6=$ |
| 10. | $6+0=$ | 32. | $38+6=$ |
| 11. | $15+6=$ | 33. | $48+6=$ |
| 12. | $25+6=$ | 34. | $78+6=$ |
| 13. | $35+6=$ | 35. | $9+6=$ |
| 14. | $45+6=$ | 36. | $19+6=$ |
| 15. | $55+6=$ | 37. | $29+6=$ |
| 16. | $85+6=$ | 38. | $39+6=$ |
| 17. | $6+6=$ | 39. | $89+6=$ |
| 18. | $16+6=$ | 40. | $6+75=$ |
| 19. | $26+6=$ | 41. | $6+56=$ |
| 20. | $36+6=$ | 42. | $6+77=$ |
| 21. | $46+6=$ | 43. | $6+88=$ |
| 22. | $76+6=$ | 44. | $6+99=$ | and the number line.

Number Correct:
Improvement:
$\qquad$
$\qquad$
Add by Six

| 1. | $6+0=$ |  |
| :---: | :---: | :---: |
| 2. | $6+1=$ |  |
| 3. | $6+2=$ |  |
| 4. | $6+3=$ |  |
| 5. | $6+4=$ |  |
| 6. | $4+6=$ |  |
| 7. | $3+6=$ |  |
| 8. | $2+6=$ |  |
| 9. | $1+6=$ |  |
| 10. | $0+6=$ |  |
| 11. | $5+6=$ |  |
| 12. | $15+6=$ |  |
| 13. | $25+6=$ |  |
| 14. | $35+6=$ |  |
| 15. | $45+6=$ |  |
| 16. | $75+6=$ |  |
| 17. | $6+6=$ |  |
| 18. | $16+6=$ |  |
| 19. | $26+6=$ |  |
| 20. | $36+6=$ |  |
| 21. | $46+6=$ |  |
| 22. | $86+6=$ |  |


| 23. | $7+6=$ |  |
| :---: | :---: | :---: |
| 24. | $17+6=$ |  |
| 25. | $27+6=$ |  |
| 26. | $37+6=$ |  |
| 27. | $47+6=$ |  |
| 28. | $67+6=$ |  |
| 29. | $8+6=$ |  |
| 30. | $18+6=$ |  |
| 31. | $28+6=$ |  |
| 32. | $38+6=$ |  |
| 33. | $48+6=$ |  |
| 34. | $88+6=$ |  |
| 35. | $9+6=$ |  |
| 36. | $19+6=$ |  |
| 37. | $29+6=$ |  |
| 38. | $39+6=$ |  |
| 39. | $79+6=$ |  |
| 40. | $6+55=$ |  |
| 41. | $6+76=$ |  |
| 42. | $6+57=$ |  |
| 43. | $6+98=$ |  |
| 44. | $6+89=$ |  | and the number line.

## A

Number Correct: $\qquad$

Add by Seven

| 1. | $0+7=$ | 23. | $6+7=$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $1+7=$ | 24. | $16+7=$ |  |
| 3. | $2+7=$ | 25. | $26+7=$ |  |
| 4. | $3+7=$ | 26. | $36+7=$ |  |
| 5. | $7+3=$ | 27. | $46+7=$ |  |
| 6. | $7+2=$ | 28. | $66+7=$ |  |
| 7. | $7+1=$ | 29. | $7+7$ = |  |
| 8. | $7+0=$ | 30. | $17+7=$ |  |
| 9. | $4+7=$ | 31. | $27+7=$ |  |
| 10. | $14+7=$ | 32. | $37+7=$ |  |
| 11. | $24+7=$ | 33. | $87+7=$ |  |
| 12. | $34+7=$ | 34. | $8+7=$ |  |
| 13. | $44+7=$ | 35. | $18+7=$ |  |
| 14. | $84+7=$ | 36. | $28+7=$ |  |
| 15. | $64+7=$ | 37. | $38+7=$ |  |
| 16. | $5+7=$ | 38. | $78+7=$ |  |
| 17. | $15+7=$ | 39. | $9+7=$ |  |
| 18. | $25+7=$ | 40. | $19+7=$ |  |
| 19. | $35+7=$ | 41. | $29+7=$ |  |
| 20. | $45+7=$ | 42. | $39+7=$ |  |
| 21. | $75+7=$ | 43. | $49+7=$ |  |
| 22. | $55+7=$ | 44. | $79+7=$ |  | different units.

Add by Seven

| 1. | $7+0=$ |  |
| :---: | :---: | :---: |
| 2. | $7+1$ = |  |
| 3. | $7+2=$ |  |
| 4. | $7+3=$ |  |
| 5. | $3+7=$ |  |
| 6. | $2+7=$ |  |
| 7. | $1+7=$ |  |
| 8. | $0+7$ = |  |
| 9. | $4+7=$ |  |
| 10. | $14+7=$ |  |
| 11. | $24+7=$ |  |
| 12. | $34+7=$ |  |
| 13. | $44+7=$ |  |
| 14. | $74+7=$ |  |
| 15. | $54+7=$ |  |
| 16. | $5+7=$ |  |
| 17. | $15+7=$ |  |
| 18. | $25+7=$ |  |
| 19. | $35+7=$ |  |
| 20. | $45+7=$ |  |
| 21. | $85+7=$ |  |
| 22. | $65+7=$ |  |


| 23. | $6+7=$ |  |
| :---: | :---: | :---: |
| 24. | $16+7=$ |  |
| 25. | $26+7=$ |  |
| 26. | $36+7=$ |  |
| 27. | $46+7=$ |  |
| 28. | $76+7=$ |  |
| 29. | $7+7$ = |  |
| 30. | $17+7=$ |  |
| 31. | $27+7=$ |  |
| 32. | $37+7=$ |  |
| 33. | $67+7=$ |  |
| 34. | $8+7=$ |  |
| 35. | $18+7=$ |  |
| 36. | $28+7=$ |  |
| 37. | $38+7=$ |  |
| 38. | $88+7=$ |  |
| 39. | $9+7=$ |  |
| 40. | $19+7=$ |  |
| 41. | $29+7=$ |  |
| 42. | $39+7=$ |  |
| 43. | $49+7=$ |  |
| 44. | $89+7=$ |  | different units.

## A

Number Correct: $\qquad$

Subtract by Six

| 1. | $16-6=$ |  |
| :---: | :---: | :---: |
| 2. | $6-6=$ |  |
| 3. | $26-6=$ |  |
| 4. | $7-6=$ |  |
| 5. | $17-6=$ |  |
| 6. | $37-6=$ |  |
| 7. | $8-6=$ |  |
| 8. | $18-6=$ |  |
| 9. | $48-6=$ |  |
| 10. | $9-6=$ |  |
| 11. | $19-6=$ |  |
| 12. | $59-6=$ |  |
| 13. | $10-6=$ |  |
| 14. | $20-6=$ |  |
| 15. | $70-6=$ |  |
| 16. | $11-6=$ |  |
| 17. | $21-6=$ |  |
| 18. | $81-6=$ |  |
| 19. | $12-6=$ |  |
| 20. | $22-6=$ |  |
| 21. | $82-6=$ |  |
| 22. | $13-6=$ |  |


| 23. | $23-6=$ |  |
| :---: | :---: | :---: |
| 24. | $33-6=$ |  |
| 25. | $63-6=$ |  |
| 26. | $83-6=$ |  |
| 27. | $14-6=$ |  |
| 28. | $24-6=$ |  |
| 29. | $34-6=$ |  |
| 30. | $74-6=$ |  |
| 31. | $54-6=$ |  |
| 32. | $15-6=$ |  |
| 33. | $25-6=$ |  |
| 34. | $35-6=$ |  |
| 35. | $85-6=$ |  |
| 36. | $65-6=$ |  |
| 37. | $90-6=$ |  |
| 38. | $53-6=$ |  |
| 39. | $42-6=$ |  |
| 40. | $71-6=$ |  |
| 41. | $74-6=$ |  |
| 42. | $95-6=$ |  |
| 43. | $51-6=$ |  |
| 44. | $92-6=$ |  |

Number Correct: $\qquad$
Improvement: $\qquad$
Subtract by Six

| 1. | $6-6=$ |  |
| :---: | :---: | :---: |
| 2. | $16-6=$ |  |
| 3. | $26-6=$ |  |
| 4. | $7-6=$ |  |
| 5. | $17-6=$ |  |
| 6. | $67-6=$ |  |
| 7. | $8-6=$ |  |
| 8. | $18-6=$ |  |
| 9. | $78-6=$ |  |
| 10. | $9-6=$ |  |
| 11. | $19-6=$ |  |
| 12. | $89-6=$ |  |
| 13. | $10-6=$ |  |
| 14. | $20-6=$ |  |
| 15. | $90-6=$ |  |
| 16. | $11-6=$ |  |
| 17. | $21-6=$ |  |
| 18. | $41-6=$ |  |
| 19. | $12-6=$ |  |
| 20. | $22-6=$ |  |
| 21. | $42-6=$ |  |
| 22. | $13-6=$ |  |


| 23. | $23-6=$ |  |
| :---: | :---: | :---: |
| 24. | $33-6=$ |  |
| 25. | $53-6=$ |  |
| 26. | $73-6=$ |  |
| 27. | $14-6=$ |  |
| 28. | $24-6=$ |  |
| 29. | $34-6=$ |  |
| 30. | $64-6=$ |  |
| 31. | $44-6=$ |  |
| 32. | $15-6=$ |  |
| 33. | $25-6=$ |  |
| 34. | $35-6=$ |  |
| 35. | $75-6=$ |  |
| 36. | $55-6=$ |  |
| 37. | $70-6=$ |  |
| 38. | $63-6=$ |  |
| 39. | $52-6=$ |  |
| 40. | $81-6=$ |  |
| 41. | $64-6=$ |  |
| 42. | $85-6=$ |  |
| 43. | $91-6=$ |  |
| 44. | $52-6=$ |  | interval is 1.

$\qquad$

Add by Eight

| 1. | $0+8=$ | 23. | $65+8=$ |
| :---: | :---: | :---: | :---: |
| 2. | $1+8=$ | 24. | $6+8=$ |
| 3. | $2+8=$ | 25. | $16+8=$ |
| 4. | $8+2=$ | 26. | $26+8=$ |
| 5. | $1+8=$ | 27. | $36+8=$ |
| 6. | $0+8=$ | 28. | $86+8=$ |
| 7. | $3+8=$ | 29. | $46+8=$ |
| 8. | $13+8=$ | 30. | $7+8=$ |
| 9. | $23+8=$ | 31. | $17+8=$ |
| 10. | $33+8=$ | 32. | $27+8=$ |
| 11. | $43+8=$ | 33. | $37+8=$ |
| 12. | $83+8=$ | 34. | $77+8=$ |
| 13. | $4+8=$ | 35. | $8+8=$ |
| 14. | $14+8=$ | 36. | $18+8=$ |
| 15. | $24+8=$ | 37. | $28+8=$ |
| 16. | $34+8=$ | 38. | $38+8=$ |
| 17. | $44+8=$ | 39. | $68+8=$ |
| 18. | $74+8=$ | 40. | $9+8=$ |
| 19. | $5+8=$ | 41. | $19+8=$ |
| 20. | $15+8=$ | 42. | $29+8=$ |
| 21. | $25+8=$ | 43. | $39+8=$ |
| 22. | $35+8=$ | 44. | $89+8=$ |

Add by Eight

| 1. | $8+0=$ |  |
| :---: | :---: | :---: |
| 2. | $8+1=$ |  |
| 3. | $8+2=$ |  |
| 4. | $2+8=$ |  |
| 5. | $1+8=$ |  |
| 6. | $0+8=$ |  |
| 7. | $3+8=$ |  |
| 8. | $13+8=$ |  |
| 9. | $23+8=$ |  |
| 10. | $33+8=$ |  |
| 11. | $43+8=$ |  |
| 12. | $73+8=$ |  |
| 13. | $4+8=$ |  |
| 14. | $14+8=$ |  |
| 15. | $24+8=$ |  |
| 16. | $34+8=$ |  |
| 17. | $44+8=$ |  |
| 18. | $84+8=$ |  |
| 19. | $5+8=$ |  |
| 20. | $15+8=$ |  |
| 21. | $25+8=$ |  |
| 22. | $35+8=$ |  |

Number Correct:
Improvement:
$\qquad$
$\qquad$

| 23. | $55+8=$ |  |
| :---: | :---: | :---: |
| 24. | $6+8=$ |  |
| 25. | $16+8=$ |  |
| 26. | $26+8=$ |  |
| 27. | $36+8=$ |  |
| 28. | $66+8=$ |  |
| 29. | $56+8=$ |  |
| 30. | $7+8=$ |  |
| 31. | $17+8=$ |  |
| 32. | $27+8=$ |  |
| 33. | $37+8=$ |  |
| 34. | $67+8=$ |  |
| 35. | $8+8=$ |  |
| 36. | $18+8=$ |  |
| 37. | $28+8=$ |  |
| 38. | $38+8=$ |  |
| 39. | $78+8=$ |  |
| 40. | $9+8=$ |  |
| 41. | $19+8=$ |  |
| 42. | $29+8=$ |  |
| 43. | $39+8=$ |  |
| 44. | $89+8=$ |  |

## A

Number Correct: $\qquad$

Subtract by Seven

| 1. | $17-7=$ | 23. | $24-7=$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 2. | $7-7=$ | 24. | $34-7=$ |  |
| 3. | $27-7=$ | 25. | $64-7=$ |  |
| 4. | $8-7=$ | 26. | $84-7=$ |  |
| 5. | $18-7=$ | 27. | $15-7=$ |  |
| 6. | $38-7=$ | 28. | $25-7=$ |  |
| 7. | $9-7=$ | 29. | $35-7=$ |  |
| 8. | $19-7=$ | 30. | $75-7=$ |  |
| 9. | $49-7=$ | 31. | $55-7=$ |  |
| 10. | $10-7=$ | 32. | $16-7=$ |  |
| 11. | $20-7=$ | 33. | $26-7=$ |  |
| 12. | $60-7=$ | 34. | $36-7=$ |  |
| 13. | $11-7=$ | 35. | $86-7=$ |  |
| 14. | $21-7=$ | 36. | $66-7=$ |  |
| 15. | $71-7=$ | 37. | $90-7=$ |  |
| 16. | $12-7=$ | 38. | $53-7=$ |  |
| 17. | $22-7=$ | 39. | $42-7=$ |  |
| 18. | $82-7=$ | 40. | $71-7=$ |  |
| 19. | $13-7=$ | 41. | $74-7=$ |  |
| 20. | $23-7=$ | 42. | $56-7=$ |  |
| 21. | $83-7=$ | 43. | $95-7=$ |  |
| 22. | $14-7=$ | 44. | $92-7=$ |  |

Lesson 27: Explain equivalence by manipulating units and reasoning about their size.

Number Correct: $\qquad$
Improvement: $\qquad$
Subtract by Seven

| 1. | $7-7=$ |  |
| :---: | :---: | :---: |
| 2. | $17-7=$ |  |
| 3. | $27-7=$ |  |
| 4. | $8-7=$ |  |
| 5. | $18-7=$ |  |
| 6. | $68-7=$ |  |
| 7. | $9-7=$ |  |
| 8. | $19-7=$ |  |
| 9. | $79-7=$ |  |
| 10. | $10-7=$ |  |
| 11. | $20-7=$ |  |
| 12. | $90-7=$ |  |
| 13. | $11-7=$ |  |
| 14. | $21-7=$ |  |
| 15. | $91-7=$ |  |
| 16. | $12-7=$ |  |
| 17. | $22-7=$ |  |
| 18. | $42-7=$ |  |
| 19. | $13-7=$ |  |
| 20. | $23-7=$ |  |
| 21. | $43-7=$ |  |
| 22. | $14-7=$ |  |


| 23. | $24-7=$ |  |
| :---: | :---: | :---: |
| 24. | $34-7=$ |  |
| 25. | $54-7=$ |  |
| 26. | $74-7=$ |  |
| 27. | $15-7=$ |  |
| 28. | $25-7=$ |  |
| 29. | $35-7=$ |  |
| 30. | $65-7=$ |  |
| 31. | $45-7=$ |  |
| 32. | $16-7=$ |  |
| 33. | $26-7=$ |  |
| 34. | $36-7=$ |  |
| 35. | $76-7=$ |  |
| 36. | $56-7=$ |  |
| 37. | $70-7=$ |  |
| 38. | $63-7=$ |  |
| 39. | $52-7=$ |  |
| 40. | $81-7=$ |  |
| 41. | $74-7=$ |  |
| 42. | $66-7=$ |  |
| 43. | $85-7=$ |  |
| 44. | $52-7=$ |  |

Lesson 27: Explain equivalence by manipulating units and reasoning about their size.

## A

Number Correct:

Subtract by Eight

| 1. | $18-8=$ |  |
| :---: | :---: | :---: |
| 2. | $8-8=$ |  |
| 3. | $28-8=$ |  |
| 4. | $9-8=$ |  |
| 5. | $19-8=$ |  |
| 6. | $39-8=$ |  |
| 7. | $10-8=$ |  |
| 8. | $20-8=$ |  |
| 9. | $50-8=$ |  |
| 10. | $11-8=$ |  |
| 11. | $21-8=$ |  |
| 12. | $71-8=$ |  |
| 13. | $12-8=$ |  |
| 14. | $22-8=$ |  |
| 15. | $82-8=$ |  |
| 16. | $13-8=$ |  |
| 17. | $23-8=$ |  |
| 18. | $83-8=$ |  |
| 19. | $14-8=$ |  |
| 20. | $24-8=$ |  |
| 21. | $34-8=$ |  |
| 22. | $54-8=$ |  |


| 23. | $74-8=$ |  |
| :---: | :---: | :---: |
| 24. | $15-8=$ |  |
| 25. | $25-8=$ |  |
| 26. | $35-8=$ |  |
| 27. | $85-8=$ |  |
| 28. | $65-8=$ |  |
| 29. | $16-8=$ |  |
| 30. | $26-8=$ |  |
| 31. | $36-8=$ |  |
| 32. | $96-8=$ |  |
| 33. | $76-8=$ |  |
| 34. | $17-8=$ |  |
| 35. | $27-8=$ |  |
| 36. | $37-8=$ |  |
| 37. | $87-8=$ |  |
| 38. | $67-8=$ |  |
| 39. | $70-8=$ |  |
| 40. | $62-8=$ |  |
| 41. | $84-8=$ |  |
| 42. | $66-8=$ |  |
| 43. | $91-8=$ |  |
| 44. | $75-8=$ |  | Lesson 28: Compare fractions with the same numerator pictorially.

Number Correct: $\qquad$
Improvement: $\qquad$
Subtract by Eight

| 1. | $8-8=$ |  |
| :---: | :---: | :---: |
| 2. | $18-8=$ |  |
| 3. | $28-8=$ |  |
| 4. | $9-8=$ |  |
| 5. | $19-8=$ |  |
| 6. | $69-8=$ |  |
| 7. | $10-8=$ |  |
| 8. | $20-8=$ |  |
| 9. | $60-8=$ |  |
| 10. | $11-8=$ |  |
| 11. | $21-8=$ |  |
| 12. | $81-8=$ |  |
| 13. | $12-8=$ |  |
| 14. | $22-8=$ |  |
| 15. | $52-8=$ |  |
| 16. | $13-8=$ |  |
| 17. | $23-8=$ |  |
| 18. | $93-8=$ |  |
| 19. | $14-8=$ |  |
| 20. | $24-8=$ |  |
| 21. | $34-8=$ |  |
| 22. | $74-8=$ |  |


| 23. | $94-8=$ |  |
| :---: | :---: | :---: |
| 24. | $15-8=$ |  |
| 25. | $25-8=$ |  |
| 26. | $35-8=$ |  |
| 27. | $95-8=$ |  |
| 28. | $75-8=$ |  |
| 29. | $16-8=$ |  |
| 30. | $26-8=$ |  |
| 31. | $36-8=$ |  |
| 32. | $66-8=$ |  |
| 33. | $46-8=$ |  |
| 34. | $17-8=$ |  |
| 35. | $27-8=$ |  |
| 36. | $37-8=$ |  |
| 37. | $97-8=$ |  |
| 38. | $77-8=$ |  |
| 39. | $80-8=$ |  |
| 40. | $71-8=$ |  |
| 41. | $53-8=$ |  |
| 42. | $45-8=$ |  |
| 43. | $87-8=$ |  |
| 44. | $54-8=$ |  | Lesson 28: Compare fractions with the same numerator pictorially.

Multiply.
$8 \times 1=$ $\qquad$ $8 \times 2=$ $\qquad$ $8 \times 3=$
$8 \times 4=$ $\qquad$
$8 \times 5=$ $\qquad$ $8 \times 6=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 8=$ $\qquad$
$8 \times 9=$ $\qquad$
$8 \times 10=$ $\qquad$ $8 \times 5=$ $\qquad$ $8 \times 6=$ $\qquad$
$8 \times 5=$ $\qquad$ $8 \times 7=$ $\qquad$
$8 \times 5=$ $\qquad$
$8 \times 8=$
$\qquad$
$8 \times 5=$ $\qquad$ $8 \times 9=$ $\qquad$ $8 \times 5=$ $\qquad$ $8 \times 10=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 5=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 8=$ $\qquad$
$8 \times 6=$
$\qquad$ $8 \times 9=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 9=$
$\qquad$
$8 \times 7=$
$\qquad$
$8 \times 8=$ $\qquad$
$8 \times 8=$ $\qquad$
$8 \times 6=$ $\qquad$
$8 \times 8=$ $\qquad$
$8 \times 7=$ $\qquad$
$8 \times 8=$ $\qquad$ $8 \times 9=$ $\qquad$ $8 \times 9=$ $\qquad$ $8 \times 6=$ $\qquad$
$8 \times 9=$ $\qquad$ $8 \times 7=$ $\qquad$
$8 \times 9=$ $\qquad$
$8 \times 8=$ $\qquad$
$8 \times 9=$ $\qquad$ $8 \times 8=$
$8 \times 6=$
$8 \times 9=$ $\qquad$
$8 \times 7=$ $\qquad$ $8 \times 9=$ $\qquad$ $8 \times 6=$ $\qquad$
$8 \times 8=$
$\qquad$
$8 \times 9=$ $\qquad$ $8 \times 7=$ $\qquad$ $8 \times 6=$ $\qquad$ $8 \times 8=$ $\qquad$
multiply by 8 (5-9)

Multiply.

multiply by 9 (1-5)

Exit Ticket Packet

Name $\qquad$ Date $\qquad$

1. Name the fraction that is shaded.

2. Estimate to partition the rectangle into thirds.

3. A plumber has 12 feet of pipe. He cuts it into pieces that are each 3 feet in length. What fraction of the pipe would one piece represent? (Use your strip from the lesson to help you.)

Name $\qquad$ Date $\qquad$

1. Circle the model that correctly shows 1 third shaded.

2. 



There are $\qquad$ equal parts in all. $\qquad$ are shaded.
3. Michael bakes a piece of garlic bread for dinner. He shares it equally with his 3 sisters. Show how Michael and his 3 sisters can each get an equal share of the garlic bread.

Name $\qquad$ Date $\qquad$
1.
 sevenths are shaded.
2. Circle the shapes that are divided into equal parts.

3. Steven wants to equally share his pizza with his 3 sisters. What fraction of the pizza does he and each sister receive?

He and each sister receive $\qquad$

Name $\qquad$ Date $\qquad$

Each shape is 1 whole. Estimate to equally partition the shape and shade to show the given fraction.

1. 1 fourth

2. 1 fifth
3. The shape represents 1 whole. Write the fraction for the shaded part.


The shaded part is $\qquad$ .

Name $\qquad$ Date $\qquad$

1. Fill in the chart.

|  |  | Total Number of <br> Equal Parts | Total Number of <br> Equal Parts <br> Shaded | Unit Form | Fraction Form |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

2. Each image below is 1 whole. Write the fraction that is shaded.

3. Draw two identical rectangles. Partition one into 5 equal parts. Partition the other rectangle into 8 equal parts. Label the unit fractions and shade 1 equal part in each rectangle. Use your rectangles to explain why $\frac{1}{5}$ is bigger than $\frac{1}{8}$.

Name $\qquad$ Date $\qquad$

1. Complete the number sentence. Estimate to partition the strip equally. Write the unit fraction inside each unit. Shade the answer.

2 fifths =

2.

a. What fraction of the circle is shaded?
b. What fraction of the circle is not shaded?
3. Complete the chart.

|  | Total Number of <br> Equal Parts | Total Number of <br> Shaded Equal <br> Parts | Unit Fraction | Fraction Shaded |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

Name $\qquad$ Date $\qquad$

1. Write the fraction that is not shaded.
2. There are $\qquad$ sixths in 1 whole.

3. The fraction strip is 1 whole. Write fractions to label the shaded and unshaded parts.

4. Justin mows part of his lawn. Then, his lawnmower runs out of gas. He has not mowed $\frac{9}{10}$ of the lawn. What part of his lawn is mowed?

Name $\qquad$ Date $\qquad$

1. Draw a number bond that shows the shaded and the unshaded parts of the shape below. Then, show each part decomposed into unit fractions.

2. Complete the number bond. Draw a shape that has shaded and unshaded parts that match the completed number bond.


Name $\qquad$ Date $\qquad$

1. Each shape represents 1 whole. Fill in the chart.

|  | Unit Fraction | Total Number of <br> Units Shaded | Fraction Shaded |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

2. Estimate to draw and shade units on the fraction strips. Solve.
a. 4 thirds $=$

b. $\qquad$ $=\frac{10}{4}$


Name $\qquad$ Date $\qquad$

1. Each fraction strip is 1 whole. All the fraction strips are equal in length. Color 1 fractional unit in each strip. Then, circle the largest fraction and draw a star to the right of the smallest fraction.

2. Use >, <, or = to compare.
a. 1 eighth1 tenth
b. 1 whole
$\square$
5 fifths
c. $\frac{1}{7}$
$\square$
$\frac{1}{6}$

Name $\qquad$ Date $\qquad$

1. Fill in the blank with a fraction to make the statement true. Draw a matching model.

2. Tatiana ate $\frac{1}{2}$ of a small carrot. Louis ate $\frac{1}{4}$ of a large carrot. Who ate more? Use words and pictures to explain your answer.

Name $\qquad$ Date $\qquad$
Each shape represents the unit fraction. Draw a picture representing a possible whole.
1.

2.

3. Aileen and Jack used the same triangle representing the unit fraction $\frac{1}{4}$ to create 1 whole. Who did it correctly? Explain your answer.


Aileen's
Drawing


Jack's
Drawing

Name $\qquad$ Date $\qquad$
Ms. Silverstein asked the class to draw a model showing $\frac{2}{3}$ shaded. Karol and Deb drew the models below. Whose model is correct? Explain how you know.


Karol's
Diagram


Deb's
Diagram

Name $\qquad$ Date $\qquad$

1. Draw a number bond for the fractional unit. Partition the fraction strip, and draw and label the fractions on the number line. Be sure to label the fractions at 0 and 1.

## Sixths


2. Ms. Metcalf wants to share $\$ 1$ equally among 5 students. Draw a number bond and a number line to help explain your answer.
a. What fraction of a dollar will each student get?
b. How much money will each student get?

Name $\qquad$ Date $\qquad$

1. Estimate to label the given fraction on the number line. Be sure to label the fractions at 0 and 1 . Write the fractions above the number line. Draw a number bond to match your number line.

2. Partition the number line. Then, place each fraction on the number line: $\frac{3}{6}, \frac{1}{6}$, and $\frac{5}{6}$.


Name $\qquad$ Date $\qquad$

1. Estimate to equally partition and label the fractions on the number line. Label the wholes as fractions, and box them.
fifths

2. Draw a number line with endpoints 0 and 2. Label the wholes. Estimate to partition each whole into sixths, and label them. Box the fractions that are located at the same points as whole numbers.

Name $\qquad$ Date $\qquad$

1. Locate and label the following fractions on the number line.
$\begin{array}{ll}\frac{7}{3} & \frac{2}{3}\end{array}$
$\frac{4}{3}$

2. Katie bought 2 one-gallon bottles of juice for a party. Her guests drank $\frac{6}{4}$ gallons of juice. What fraction of a gallon of juice is left over? Draw a number line to show, and explain your answer.

Name $\qquad$ Date $\qquad$
Place the two fractions on the number line. Circle the fraction with the distance closest to 0 . Then, compare using $>$, <, or $=$.
1.

2. $\frac{1}{2}$

3. Mr. Brady draws a fraction on the board. Ken says it's $\frac{2}{3}$, and Dan said $i t^{\prime}$ 's $\frac{3}{2}$. Do both of these fractions mean the same thing? If not, which fraction is larger? Draw a number line to model $\frac{2}{3}$ and $\frac{3}{2}$. Use words, pictures, and numbers to explain your comparison.

Name $\qquad$ Date $\qquad$

1. Divide the number line into the given fractional unit. Then, place the fractions. Write each whole as a fraction.
fourths $\frac{2}{4} \quad \frac{10}{4} \quad \frac{7}{4}$

2. Use the number line above to compare the following fractions using $>,<$, or $=$.

3. Use the number line from Problem 1. Which is larger: 2 wholes or $\frac{9}{4}$ ? Use words, pictures, and numbers to explain your answer.

Name $\qquad$ Date $\qquad$

1. Label what fraction of the figure is shaded. Then, circle the fractions that are equal.

2. Label the shaded fraction. Draw 2 different representations of the same fractional amount.

b.


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Claire went home after school and told her mother that 1 whole is the same as $\frac{2}{2}$ and $\frac{6}{6}$. Her mother asked why, but Claire couldn't explain. Use a number line and words to help Claire show and explain why
$1=\frac{2}{2}=\frac{6}{6}$.

Name $\qquad$ Date $\qquad$

1. Draw and label two models that show equivalent fractions.
2. Draw a number line that proves your thinking about Problem 1. and the number line.

Name
Date $\qquad$

Henry and Maddie were in a pie-eating contest. The pies were cut either into thirds or sixths. Henry picked up a pie cut into sixths and ate $\frac{4}{6}$ of it in 1 minute. Maddie picked up a pie cut into thirds. What fraction of her pie does Maddie have to eat in 1 minute to tie with Henry? Draw a number line, and use words to explain your answer.

Name
Date $\qquad$

1. Complete the number bond as indicated by the fractional unit. Partition the number line into the given fractional unit, and label the fractions. Rename 0 and 1 as fractions of the given unit.

2. How many copies of $\frac{1}{4}$ does it take to make 1 whole? What's the fraction for 1 whole in this case? Use the number line or the number bond in Problem 1 to help you explain.

Name $\qquad$ Date $\qquad$

1. Label the model as a fraction inside the box.

2. Partition the wholes into thirds. Rename the fraction for 3 wholes. Use the number line and words to explain your answer.


Name $\qquad$ Date $\qquad$

Irene has 2 yards of fabric.
a. Draw a number line to represent the total length of Irene's fabric.
b. Irene cuts her fabric into pieces of $\frac{1}{5}$ yard in length. Partition the number line to show her cuts.
c. How many $\frac{1}{5}$-yard pieces does she cut altogether? Use number bonds with copies of wholes to help you explain.

Name $\qquad$ Date $\qquad$

1. Solve.

2 thirds is equal to $\qquad$ twelfths.

$$
\frac{2}{3}=\frac{}{12}
$$

2. Draw and label two models that show fractions equivalent to those in Problem 1.
3. Use words to explain why the two fractions in Problem 1 are equal.

Name $\qquad$ Date $\qquad$

1. Shade the models to compare the fractions.

2 thirds


2 eighths $\square$

Which is larger, 2 thirds or 2 eighths? Why? Use words to explain.
2. Draw a model for each fraction. Circle the smaller fraction.

3 sevenths

3 fourths

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1. Complete the number sentence by writing $>,<$, or $=$.

2. Draw 2 number lines with endpoints 0 and 1 to show each fraction in Problem 1. Use the number lines to explain how you know your comparison in Problem 1 is correct.

Assessment Packet

Name $\qquad$ Date $\qquad$

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

1. Natalie folded 1 whole fraction strip as pictured above.
a. How many equal parts did she divide the whole into?
b. Label each equal part with a unit fraction.
c. Identify the fraction of the strip she shaded.
d. Identify the fraction of the strip she did not shade.
2. Draw 2 rectangles the same size. Each rectangle represents 1 whole.
a. Partition each rectangle into 3 equal parts. Shade and label a fraction greater than 1.
b. Draw a number bond that shows 1 whole rectangle as 3 unit fractions.
3. The bakery had a chocolate cake and a vanilla cake that were exactly the same size. Mr. Chu bought 1 fourth of the chocolate cake. Mrs. Ramirez bought 1 sixth of the vanilla cake. Who bought a larger piece of cake? Explain your answer using words, pictures, and numbers.
4. Natalie explained, "My drawing shows a picture of $\frac{3}{2}$." Kosmo says, "It looks like a picture of $\frac{3}{4}$ to me."
a. Show and explain how they could both be correct by choosing different wholes. Use words, pictures, and numbers.

b. Natalie said to Kosmo, "One part can represent either 1 half or 1 fourth. That must mean $\frac{1}{2}=\frac{1}{4}$." Do you agree with Natalie? Use words, pictures, and numbers to explain your reasoning.

Name $\qquad$ Date $\qquad$

1. Jerry put 7 equally spaced hooks on a straight wire so students could hang up their coats. The whole length is from the first hook to the last hook.
a. On the picture below, label the fraction of the wire's length where each hook is located.

b. At what fraction is Betsy's coat if she hangs it at the halfway point?
c. Write a fraction that is equivalent to your answer for Part (b).
2. Jerry used the picture below to show his son how to find a fraction equal to $\frac{2}{3}$. Explain what Jerry might have said and done using words, pictures, and numbers.

3. Jerry and his son have the exact same granola bars. Jerry has eaten $\frac{3}{6}$ of his granola bar. His son has eaten $\frac{3}{8}$ of his own granola bar. Who has eaten more? Explain your answer using words, pictures, and numbers.
4. Jerry has a fruit roll that is 4 feet long.
a. Label the number line to show how Jerry might cut his fruit roll into pieces $\frac{1}{3}$ of a foot long. Label every fraction on the number line, including renaming the wholes.

b. Jerry cut his fruit roll into pieces that are $\frac{1}{3}$ of a foot long. Jerry and his 2 sons each eat one piece. What fraction of the whole fruit roll is eaten? Explain your answer using words, pictures, and numbers.
c. Jerry's son says that 1 third is the same as 2 sixths. Do you agree? Why or why not? Use words, pictures, and numbers to explain your answer.
