

- Template 3: Vocabulary cards
- Template 2: Math bingo card on cardstock
- The Reflection replaces the Exit Ticket in Topic E

Lesson 1
$\qquad$

## Convert to Dollars

| 1. | 1 cent = | \$ 0. | 23. | 6 pennies $=$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 2 cents $=$ |  | 24. | 5 dimes $=$ |  |
| 3. | 3 cents $=$ |  | 25. | 5 pennies $=$ |  |
| 4. | 8 cents $=$ |  | 26. | 1 dime 1 penny = |  |
| 5. | 80 cents = |  | 27. | 1 dime 2 pennies $=$ |  |
| 6. | 70 cents $=$ |  | 28. | 1 dime 7 pennies $=$ |  |
| 7. | 60 cents $=$ |  | 29. | 4 dimes 5 pennies $=$ |  |
| 8. | 20 cents $=$ |  | 30. | 6 dimes 3 pennies $=$ |  |
| 9. | 1 penny = |  | 31. | 3 pennies 6 dimes $=$ |  |
| 10. | 1 dime $=$ |  | 32. | 7 pennies 9 dimes $=$ |  |
| 11. | 2 pennies = |  | 33. | 1 quarter = |  |
| 12. | 2 dimes $=$ |  | 34. | 2 quarters = |  |
| 13. | 3 pennies $=$ |  | 35. | 3 quarters = |  |
| 14. | 3 dimes $=$ |  | 36. | 2 quarters 3 pennies = |  |
| 15. | 9 dimes $=$ |  | 37. | 1 quarter 3 pennies $=$ |  |
| 16. | 7 pennies $=$ |  | 38. | 3 quarters 3 pennies $=$ |  |
| 17. | 8 dimes $=$ |  | 39. | 2 quarters 2 dimes $=$ |  |
| 18. | 4 pennies $=$ |  | 40. | 1 quarter 1 dime = |  |
| 19. | 6 dimes $=$ |  | 41. | 3 quarters 1 dime $=$ |  |
| 20. | 8 pennies $=$ |  | 42. | 1 quarter 4 dimes $=$ |  |
| 21. | 7 dimes $=$ |  | 43. | 3 quarters 2 dimes = |  |
| 22. | 9 pennies $=$ |  | 44. | 3 quarters 18 pennies $=$ |  |

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

## Convert to Dollars

| 1. | 2 cents $=$ | \$ 0. | 23. | 5 pennies $=$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 3 cents $=$ |  | 24. | 6 dimes $=$ |  |
| 3. | 4 cents $=$ |  | 25. | 4 pennies $=$ |  |
| 4. | 9 cents $=$ |  | 26. | 1 dime 1 penny = |  |
| 5. | 90 cents $=$ |  | 27. | 1 dime 2 pennies $=$ |  |
| 6. | 80 cents $=$ |  | 28. | 1 dime 8 pennies $=$ |  |
| 7. | 70 cents $=$ |  | 29. | 5 dimes 4 pennies $=$ |  |
| 8. | 30 cents = |  | 30. | 7 dimes 4 pennies $=$ |  |
| 9. | 1 penny = |  | 31. | 4 pennies 7 dimes $=$ |  |
| 10. | 1 dime $=$ |  | 32. | 6 pennies 8 dimes $=$ |  |
| 11. | 2 pennies = |  | 33. | 1 quarter = |  |
| 12. | 2 dimes $=$ |  | 34. | 2 quarters = |  |
| 13. | 3 pennies $=$ |  | 35. | 3 quarters = |  |
| 14. | 3 dimes $=$ |  | 36. | 2 quarters 4 pennies = |  |
| 15. | 8 dimes $=$ |  | 37. | 1 quarter 4 pennies $=$ |  |
| 16. | 6 pennies $=$ |  | 38. | 3 quarters 4 pennies $=$ |  |
| 17. | 7 dimes $=$ |  | 39. | 2 quarters 3 dimes $=$ |  |
| 18. | 9 pennies $=$ |  | 40. | 1 quarter 2 dimes = |  |
| 19. | 5 dimes $=$ |  | 41. | 3 quarters 2 dimes $=$ |  |
| 20. | 7 pennies = |  | 42. | 1 quarter 5 dimes $=$ |  |
| 21. | 9 dimes $=$ |  | 43. | 3 quarters 1 dime $=$ |  |
| 22. | 8 pennies $=$ |  | 44. | 3 quarters 19 pennies $=$ |  |

## Lesson 2

Name $\qquad$ Date $\qquad$

## Practice Set A Part 1: Multi-Digit Addition Fluency

1. 

| 8,149 |
| ---: |
| $+\quad 7,264$ |

2. 

| $42, \quad 60$ |
| ---: |
| $+\quad 8$, |

3. 

| 39, |
| ---: |
| $+\quad 48$ |
| $+\quad 4$ |

6. 

| 438,617 |
| ---: |
| $+493,859$ |

## Practice Set A Part 2: Multi-Digit Addition Fluency

1. 

9, 202

| $+6,211$ |
| :--- |

2. 

| 42, |
| ---: |
| $+\quad 874$ |

3. 

| 53, |
| ---: |
| $+\quad 345$ |

4. 

$$
\begin{array}{r}
604, \\
+ \\
+ \\
\hline
\end{array}
$$

5. 

| 4 | 5 | 4, | 3 | 1 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2 | 9, | 0 | 7 | 6 |

6. 

| 110,728 |
| ---: |
| $+821,748$ |

Name $\qquad$ Date $\qquad$

Practice Set B Part 1: Multi-Digit Subtraction Fluency
1.

$$
\begin{array}{r}
7,739 \\
-5546 \\
\hline
\end{array}
$$


4.

$$
\begin{array}{llllll}
4 & 7 & 9 & 5 & 4 & 1
\end{array}
$$

$$
7 \quad 8, \quad 8 \quad 5 \quad 6
$$

Practice Set B Part 2: Multi-Digit Subtraction Fluency
1.

$$
\begin{array}{r}
7699 \\
-5506 \\
\hline
\end{array}
$$

2. 

$$
\begin{array}{r}
19,145 \\
-\quad 1, \quad 1 \quad 29 \\
\hline
\end{array}
$$

4. 

$$
\begin{array}{r}
479,497 \\
-\quad 78,812
\end{array}
$$

Name $\qquad$ Date $\qquad$

## Practice Set C Part 1: Multi-Digit Subtraction with Zeros Fluency

1. 

$$
\begin{array}{r}
7890 \\
-5472 \\
\hline
\end{array}
$$

2. 


4.

| 4 | 0 | 0, | 0 | 6 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2 | 4, | 3 | 6 | 2 |

Practice Set C Part 2: Multi-Digit Subtraction with Zeros Fluency
1.

$$
\begin{array}{r}
7890 \\
-5472 \\
\hline
\end{array}
$$

2. 

28,
$-\quad 6$
6 $\quad 4 \quad 6 \quad 19$
4.

| 4 | 0 | 0, | 8 | 6 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2 | 5 | 1 | 6 | 2 |

Name $\qquad$
$\qquad$

## Practice Set D Part 1: Multi-Digit Addition and Subtraction Fluency

1. 

$$
\begin{array}{r}
9,327 \\
+9664
\end{array}
$$

2. 

| 39, |
| ---: |
| -38 |
| -3 |


| $-38, \quad 9 \quad 38$ |
| :--- |

3. 

| 758,194 |
| ---: |
| $+\quad 35,478$ |

6. 

| 9600043 |
| ---: |
| $-\quad 368,972$ |

Practice Set D Part 2: Multi-Digit Addition and Subtraction Fluency
1.

$$
\begin{array}{r}
9630 \\
+\quad 9,361 \\
\hline
\end{array}
$$

2. 

$$
\begin{array}{r}
34147 \\
-33653 \\
\hline
\end{array}
$$

5. 

| 1081215 |
| ---: |
| +5244 |

3. 

| $754, \quad 454$ |
| ---: |
| $+\quad 399$ |

6. 

| 959,943 |
| ---: |
| -3688 |

3 6, 872
4.

$$
\begin{array}{r}
839, \quad 099 \\
-\quad 27,160 \\
\hline
\end{array}
$$

| Date |  |
| :---: | :---: |
| Quarts | Pints |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |

The rule for converting gallons to quarts is
$\qquad$
The rule for converting quarts to gallons is
$\qquad$ .

| Pints | Cups |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |

The rule for converting pints to cups is

The rule for converting cups to pints is
$\qquad$ .

The rule for converting quarts to pints is

The rule for converting pints to quarts is
$\qquad$

| Liters | Milliliters |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |

The rule for converting liters to milliliters is

The rule for converting milliliters to liters is
$\qquad$ .

## Lesson 3

$\qquad$ Date $\qquad$
a.

| Minutes | Seconds |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |

The rule for converting minutes to seconds is
$\qquad$ -
c.

| Days | Hours |
| :---: | :--- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |

The rule for converting days to hours is
$\qquad$ .
b.

| Hours | Minutes |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 | 10 |

The rule for converting hours to minutes is
$\qquad$ .

## Lesson 5

## A

Number Correct: $\qquad$

Convert Length Units

| 1. | $1 \mathrm{~km}=$ | m | 23. | $6 \mathrm{~km}=$ | m |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | $2 \mathrm{~km}=$ | m | 24. | $5 \mathrm{~m}=$ | cm |
| 3. | $3 \mathrm{~km}=$ | m | 25. | $7 \mathrm{~m}=$ | cm |
| 4. | $7 \mathrm{~km}=$ | m | 26. | $4 \mathrm{~m}=$ | cm |
| 5. | $5 \mathrm{~km}=$ | m | 27. | $8 \mathrm{~m}=$ | cm |
| 6. | $1 \mathrm{~m}=$ | cm | 28. | $4 \mathrm{yd}=$ | ft |
| 7. | $2 \mathrm{~m}=$ | cm | 29. | $8 \mathrm{yd}=$ | ft |
| 8. | $3 \mathrm{~m}=$ | cm | 30. | $6 \mathrm{yd}=$ | ft |
| 9. | $9 \mathrm{~m}=$ | cm | 31. | $9 \mathrm{yd}=$ | ft |
| 10. | $6 \mathrm{~m}=$ | cm | 32. | $5 \mathrm{ft}=$ | in |
| 11. | $1 \mathrm{yd}=$ | ft | 33. | $6 \mathrm{ft}=$ | in |
| 12. | $2 \mathrm{yd}=$ | ft | 34. | 1,000 m = | km |
| 13. | $3 \mathrm{yd}=$ | ft | 35. | 8,000 m = | km |
| 14. | $10 \mathrm{yd}=$ | ft | 36. | $100 \mathrm{~cm}=$ | m |
| 15. | $5 \mathrm{yd}=$ | ft | 37. | $600 \mathrm{~cm}=$ | m |
| 16. | $1 \mathrm{ft}=$ | in | 38. | $3 \mathrm{ft}=$ | yd |
| 17. | $2 \mathrm{ft}=$ | in | 39. | $24 \mathrm{ft}=$ | yd |
| 18. | $3 \mathrm{ft}=$ | in | 40. | 12 in $=$ | ft |
| 19. | $10 \mathrm{ft}=$ | in | 41. | 72 in $=$ | ft |
| 20. | $4 \mathrm{ft}=$ | in | 42. | $8 \mathrm{ft}=$ | in |
| 21. | $9 \mathrm{~km}=$ | m | 43. | 84 in $=$ | ft |
| 22. | $4 \mathrm{~km}=$ | m | 44. | $9 \mathrm{ft}=$ | in |

Number Correct:
Improvement:
$\qquad$
$\qquad$
Convert Length Units

| 1. | $1 \mathrm{~m}=$ | cm | 23. | $6 \mathrm{~m}=$ | cm |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | $2 \mathrm{~m}=$ | cm | 24. | $5 \mathrm{~km}=$ | m |
| 3. | $3 \mathrm{~m}=$ | cm | 25. | $7 \mathrm{~km}=$ | m |
| 4. | $7 \mathrm{~m}=$ | cm | 26. | $4 \mathrm{~km}=$ | m |
| 5. | $5 \mathrm{~m}=$ | cm | 27. | $8 \mathrm{~km}=$ | m |
| 6. | $1 \mathrm{~km}=$ | m | 28. | $6 \mathrm{yd}=$ | ft |
| 7. | $2 \mathrm{~km}=$ | m | 29. | $9 \mathrm{yd}=$ | ft |
| 8. | $3 \mathrm{~km}=$ | m | 30. | $4 \mathrm{yd}=$ | ft |
| 9. | $9 \mathrm{~km}=$ | m | 31. | $8 \mathrm{yd}=$ | ft |
| 10. | $6 \mathrm{~km}=$ | m | 32. | $5 \mathrm{ft}=$ | in |
| 11. | $1 \mathrm{yd}=$ | ft | 33. | $6 \mathrm{ft}=$ | in |
| 12. | $2 \mathrm{yd}=$ | ft | 34. | $100 \mathrm{~cm}=$ | m |
| 13. | $3 \mathrm{yd}=$ | ft | 35. | $800 \mathrm{~cm}=$ | m |
| 14. | $5 \mathrm{yd}=$ | ft | 36. | 1,000 m = | km |
| 15. | $10 \mathrm{yd}=$ | ft | 37. | 6,000 m = | km |
| 16. | $1 \mathrm{ft}=$ | in | 38. | $3 \mathrm{ft}=$ | yd |
| 17. | $2 \mathrm{ft}=$ | in | 39. | $27 \mathrm{ft}=$ | yd |
| 18. | $3 \mathrm{ft}=$ | in | 40. | 12 in = | ft |
| 19. | $10 \mathrm{ft}=$ | in | 41. | 84 in = | ft |
| 20. | $4 \mathrm{ft}=$ | in | 42. | $9 \mathrm{ft}=$ | in |
| 21. | $9 \mathrm{~m}=$ | cm | 43. | 72 in = | ft |
| 22. | $4 \mathrm{~m}=$ | cm | 44. | $8 \mathrm{ft}=$ | in |


| Classmate: |  | Problem <br> Number: |  |
| :--- | :--- | :--- | :--- |
| Strategies my <br> classmate used: |  |  |  |
| Things my <br> classmate did <br> well: |  |  |  |
| Suggestions for <br> improvement: |  |  |  |
| Changes I would <br> make to my work <br> based on my <br> classmate's work: |  |  |  |


| Classmate: |  | Problem <br> Number: |  |
| :--- | :--- | :--- | :--- |
| Strategies my <br> classmate used: |  |  |  |
| Things my <br> classmate did <br> well: |  |  |  |
| Suggestions for <br> improvement: |  |  |  |
| Changes I would <br> make to my work <br> based on my <br> classmate's work: |  |  |  |

peer share and critique form

## Lesson 7

| Squares | Sides |
| :---: | :---: |
| 1 | 4 |
| 2 |  |
| 3 | 12 |
| 4 |  |
| 5 | 20 |
| 6 | 24 |

What's the rule?

## Lesson 10

| Position | Value |
| :---: | :---: |
| 1 | 17 |
| 2 | 18 |
| 3 | 19 |
| 4 | 20 |
| 5 | 21 |
| 6 | 22 |

What's the rule?

## Lesson 15

|  | Bueco e |
| :---: | :---: |
| Input | Output |
| $13$ |  |
|  |  |
|  |  |
|  |  |
|  |  |

use the rule

## Lesson 16


use the rule

1. Raisins in a Snack Pack

| Stem | Leaf |  |  |  |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 8 | 9 | 9 |  |  |  |  |  |  |
| 2 | 0 | 0 | 2 | 3 | 4 | 4 | 9 | 9 |  |
| 3 | 0 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 6 |$\quad$| $3 \mid 4$ means 34 raisins. |
| :--- | :--- |

2. Height in Inches of Fourth Grade Students

| Stem | Leaf |
| :---: | :---: |
| 3 | 9 |
| 4 |  |
| 5 | 456889 |
| 6 | 0134478 |
| $6 \mid 1$ means 61 inches. |  |

3. Mrs. Jefferson surveyed her students to find out how many pages they read over the last week. Her students' responses are shown below:
$68,75,46,70,66,62,49,75,65,46,77,62,60$
Create a stem-and-leaf plot to show the number of pages Mrs. Jefferson's students read. Include a title and a key.

| Stem | Leaf |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

## Lesson 17

| Position | Value |
| :---: | :---: |
| 1 | 44 |
| 2 | 88 |
| 3 | 132 |
| 4 | 176 |
| 5 |  |
| 6 | 264 |

What's the rule?

## Lesson 18

Name $\qquad$ Date $\qquad$
In the table below are topics that you learned in Grade 4 and that were used in today's lesson.
Choose 1 topic, and describe how you were successful in using it today.

| 2-digit by 2-digit <br> multiplication | Area formula | Division of 3-digit number by <br> 1-digit number |
| :---: | :---: | :---: |
| Subtraction of multi-digit <br> numbers | Addition of multi-digit <br> numbers | Solving multi-step word <br> problems |

## Lesson 19

Name $\qquad$ Date $\qquad$
In the table below are skills that you learned in Grade 4 and that you used to complete today's lesson. These skills were originally introduced in earlier grades, and you will continue to work on them as you go on to later grades. Choose three topics from the chart, and explain how you think you might build on and use them in Grade 5.

| Multiply 2-digit by |  |  |
| :---: | :---: | :---: |
| 2-digit numbers | Use the area formula to <br> find the area of <br> composite figures | Create composite figures <br> from a set of specifications |
| Subtract multi-digit numbers | Add multi-digit numbers | Solve multi-step word <br> problems |
| Construct parallel and <br> perpendicular lines | Measure and construct <br> $90^{\circ}$ angles | Measure in centimeters |



## protractor


centimeter ruler

## Lesson 20

$\qquad$

1. What are you able to do now in math that you were not able to do at the beginning of Grade 4?
2. Which activities would you like to practice this summer in order to keep fluent or become more fluent?
3. What type of practice would help you build your fluency with these concepts?

Name $\qquad$ Date $\qquad$

## Convert Units: Teacher Card

Materials: (S) Mini-personal white board
T: (Write $1 \mathrm{~m} 20 \mathrm{~cm}=\quad \mathrm{cm}$.) 1 m 20 cm is how many centimeters?
S: 120 centimeters.
Repeat the process with this sequence:
$1 \mathrm{~m} 80 \mathrm{~cm}=180 \mathrm{~cm}$
$3 \mathrm{~km} 249 \mathrm{~m}=3,249 \mathrm{~m}$
$4 \mathrm{~L} 71 \mathrm{~mL}=4,071 \mathrm{~mL}$
$2 \mathrm{~kg} 5 \mathrm{~g}=2,005 \mathrm{~g}$

## Add Large Numbers: Teacher Card

Materials: (S) Mini-personal white board
T: (Write 747 thousands 585 ones.) On your board, write this number in standard form.
S: (Write 747,585.)
T: (Write 242 thousands 819 ones.) Add this number to $74 \overline{7,585}$ using the standard algorithm.
S: (Write $747,585+\underline{242,819}=\underline{990,404}$ using the standard algorithm.)

Continue the process with this sequence:
$528,649+247,922=776,571$
$348,587+629,357=977,944$
$426,099+397,183=823,282$

## New Problem

T: (Write $\qquad$ $=$ $\qquad$ .)
$\qquad$ is how many $\qquad$ ?

S : $\qquad$ .

## New Problem

T: (Write $\qquad$ thousands $\qquad$ ones.)
On your board, write this number in standard form.

S: (Write $\qquad$ .)

T: (Write $\qquad$ thousands $\qquad$ ones.)

Add this number to
using the standard algorithm.
S: $($ $\qquad$ $+$ $\qquad$ $=$ $\qquad$
using the standard algorithm.)

## Subtract Large Numbers: Teacher Card

Materials: (S) Mini-personal white board
T: (Write 600 thousands.) On your board, write this number in standard form.
S: (Write 600,000.)
T: (Write 545 thousands 543 ones.) Subtract this number from 600,000 using the standard algorithm.
S: (Write $600,000-545,543=54,457$ using the standard algorithm.)
Continue the process with this sequence:
$400,000-251,559=148,441$
$700,000-385,476=314,524$
$600,024-197,088=402,936$

## New Problem

T: (Write $\qquad$ thousands.) On your board, write this number in standard form.

S: (Write $\qquad$ .)

T: (Write $\qquad$ thousands $\qquad$ ones.)

Subtract this number from
using the standard algorithm.
S: $\qquad$ - $\qquad$ $=$
using the standard algorithm.)

## Multiply Mentally: Teacher Card

Materials: (S) Mini-personal white board
T: $\quad$ (Write $32 \times 3=$ $\qquad$ .)
Say the multiplication sentence.
S: $\quad 32 \times 3=96$.
T: (Write $32 \times \underline{3}=96$. Below it, write $32 \times 20=$ $\qquad$ .)
Say the multiplication sentence.
S: $\quad 32 \times 20=640$.
T: (Write $32 \times 20=640$. Below it, write $32 \times 23=$ $\qquad$ .)
On your board, solve $32 \times 23$.
S: $\quad($ Write $\underline{32 \times 23}=736$.)
Repeat the process with this sequence:
$42 \times 2=84,42 \times 20=840,42 \times 22=924$
$31 \times 4=124,31 \times 40=1,240,31 \times 44=1,364$

## New Problem

T: (Write $\qquad$ $\times$ $\qquad$ = $\qquad$ .)

Say the multiplication sentence.
S: $\qquad$ $\times$ $\qquad$ = $\qquad$
T:
(Write $\qquad$ $\times$ $\qquad$ $=$ $\qquad$ . Below it,
write $\qquad$ $\times$ $\qquad$ $=$ $\qquad$
Say the multiplication sentence.
S: $\qquad$ $\times$ $\qquad$ $=$ $\qquad$ .

T: (Write $\qquad$ $\times \quad=$ $\qquad$ . Below it, write $\qquad$ $\times$ $\qquad$ $=$ $\qquad$ .)
On your board, solve $\qquad$ $\times$ $\qquad$ .

S: (Write $\qquad$ $\times$ $\qquad$ $=$ $\qquad$ .)

## Divide Mentally: Teacher Card

Materials: (S) Mini-personal white board
T: (Write $40 \div 2$.) Write the division sentence in unit form.
S: 4 tens $\div \underline{2}=2$ tens.
T: (To the right, write $\underline{8} \div \underline{2}$.) Write the division sentence in unit form.
S: 8 ones $\div \underline{2}=\underline{4}$ ones.
T: (Write $48 \div 2$.) Write the complete division sentence in unit form.
S: $\underline{4}$ tens 8 ones $\div \underline{2}=\underline{2}$ tens 4 ones.
T: Say the division sentence.
S: $\quad \underline{48} \div \underline{2}=\underline{24}$.
Continue the process with this sequence:
$90 \div 3=30,3 \div 3=1,93 \div 3=31$
$80 \div 4=20,8 \div 4=2,88 \div 4=22$
$180 \div 6=30,6 \div 6=1,186 \div 6=31$

## New Problem

T: (Write $\qquad$ $\div$ $\qquad$ .) Write the division sentence in unit form.
S : $\qquad$ tens $\div$ $\qquad$ = $\qquad$ tens.

T : (To the right, write $\qquad$ $\div$ $\qquad$ .) Write the division sentence in unit form.

S: $\qquad$ ones $\div$ $\qquad$ $=$ $\qquad$ ones.

T: (Write $\qquad$ $\div$ $\qquad$ .) Write the complete division sentence in unit form.
S: $\qquad$ tens $\qquad$ ones $\div$ $\qquad$ $=$ $\qquad$ tens
$\qquad$ ones.

T: Say the division sentence.
S: $\qquad$ $\div$ $\qquad$ $=$ .

## State the Value of a Set of Coins: Teacher Card

Materials: (S) Mini-personal white board
T: (Draw 2 quarters and 4 dimes as number disks labeled 25 ¢ and $\overline{10} \mathrm{C}$.) What's the value of 2 quarters and 4 dimes?
S: 90c.
T: Write 90 cents as a fraction of a dollar.
S: (Write $\frac{90}{100}$ dollar.)
T : Write 90 cents in decimal form using the dollar sign.
S: (Write \$0.90.)
Continue the process with this sequence:
1 quarter 9 dimes 12 pennies $=127 \mathrm{c}, \frac{127}{100}$ dollar, \$1.27
3 quarters 5 dimes 20 pennies $=145 \mathrm{c}, \frac{145}{100}$ dollar,
\$1.45

## Break Apart $180^{\circ}$ : Teacher Card

Materials: (S) Mini-personal white board, protractor, straightedge

T: (Project a number bond with a whole of $180^{\circ}$. Fill in $80^{\circ}$ for one of the parts.) On your board, complete the number bond, filling in the unknown part.
S: (Draw a number bond with a whole of $180^{\circ}$, and $80^{\circ}$ and $100^{\circ}$ as parts.)
T : Use your protractor to draw the pair of angles.

S: (Draw and label the two angles that make $180^{\circ}$.)
Continue the process for $120^{\circ}+60^{\circ}=180^{\circ}$

$35^{\circ}+145^{\circ}=180^{\circ}$
$\qquad$
$+$ $=180^{\circ}$

## New Problem

T: (Draw $\qquad$ quarters and $\qquad$ dimes as number disks labeled $25 ¢$ and 10 c.) What's the value of $\qquad$ ?

S: $\qquad$ .

T: Write $\qquad$ cents as a fraction of a dollar.

S: (Write $\qquad$ dollar.)

T: Write $\qquad$ cents in decimal form using the dollar sign.

S: (Write \$ $\qquad$ .)

## New Problem

T: (Project a number bond with a whole of $180^{\circ}$. Fill in $\qquad$ ${ }^{\circ}$ for one of the parts.) On your board, complete the number bond, filling in the unknown part.

S: (Draw a number bond with a whole of $180^{\circ}$, and $\qquad$ ${ }^{\circ}$ and $\qquad$ ${ }^{\circ}$ as parts.)

T: Use your protractor to draw the pair of angles.

S: (Draw and label the two angles that make $180^{\circ}$.)
fluency cards

Lesson 21
$\qquad$

1. Why do you think vocabulary was such an important part of fourth-grade math? How does vocabulary help you in math?
2. Which vocabulary terms do you know well, and which would you like to improve upon?

## Bingo:

1. Players write a vocabulary term in each box of the math bingo game. Each term should be used only once. The box that says Math Bingo is a free space.
2. Players place the filled-in math bingo template in their mini-personal white boards.
3. One person is the caller and reads the definition on a vocabulary card.
4. Players cross off (or cover) the term that matches the definition.
5. Bingo! is called when 5 vocabulary terms in a row are crossed off diagonally, vertically, or horizontally. The free space counts as 1 box toward the needed 5 vocabulary terms.
6. The first player to have 5 in a row reads each crossed off word, states the definition, and gives a description or an example of each word. If all words are reasonably explained as determined by the caller, the player is declared the winner.

## Concentration:

Structure: Teams or partnerships.

1. Create an array of all the cards face down.
2. Players take turns flipping over pairs of cards to find a match. A match is a vocabulary term and its definition. Cards keep their precise location in the array if not matched. Remaining cards are not reconfigured into a new array.
3. After all cards are matched, the player with the most pairs is the winner.

## Math Jeopardy:

Structure: Teams or partnerships. Callers should prepare the game in advance.

1. The definitions are sorted into labeled columns by a caller: units, lines and angles, the four operations, and geometric shapes.
2. The first term directly below the heading has a value of $\$ 100$, the next $\$ 200$, and so on. The caller should make an effort to order the questions from easiest to hardest.
3. Player 1 chooses a column and a dollar value, for example, "I choose geometry terms for \$100." The caller reads, "The answer is..."
4. The players say the matching question, for example, "What is a quadrilateral?"
5. The first person to correctly state the question wins the dollar value for that card.
6. Play continues until all cards are used.
7. The player with the highest dollar value wins.

## Math Pictionary:

Structure: Teams or partnerships.

1. A timer is set for 1 minute.
2. A vocabulary term is chosen from a bag by a player from Team 1, who draws an example as quickly as possible.
3. The player's teammate(s) tries to guess the vocabulary term. When the term is guessed, a new term is chosen by the same player. The process is repeated as many times as possible within the minute. Terms not guessed when the timer sounds go back in the bag.
4. A player from Team 2 repeats the process.
5. Teams count the number of words guessed. The team with the most words is the winner.

[^0]

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

math bingo

Lesson 21
Practice and solidify Grade 4 vocabulary.

| A metric unit of measure equivalent to 1,000 grams. | A whole number greater than 1 whose only factors are 1 and itself. | An angle measuring less than 90 degrees. | Lines that intersect and form a $90^{\circ}$ angle. |
| :---: | :---: | :---: | :---: |
| A whole number plus a fraction. | An angle that turns through $\frac{1}{360}$ of a circle. | The bottom number in a fraction that tells the number of equal parts in the whole. | A customary unit of measurement for liquid volume equivalent to 4 quarts. |
| A customary unit of measurement for liquid volume equivalent to 2 pints. | The answer to a multiplication problem. | A number leftover that can't be divided into equal groups. | A line through a figure such that when the figure is folded along the line, two halves are created that match up exactly. |
| Two lines in a plane that never intersect. | A triangle with at least two equal sides. | A whole number having three or more distinct factors. | A closed figure with 4 straight sides and 4 angles. |
| An angle measuring 90 degrees. | An angle with a measure greater than 90 degrees but less than 180 degrees. | Lines that contain at least 1 point in common. | A tool used to measure and draw angles. |
| The top number in a fraction that tells how many parts of the whole are selected. | A triangle that contains one 90-degree angle. | This special angle measures 180 degrees. | A closed figure with 3 straight sides of equal length and 3 equal angles. |

[^1]| Kilogram | Prime Number | Acute Angle | Perpendicular Lines |
| :---: | :---: | :---: | :---: |
| Mixed Number | One-Degree Angle | Denominator | Gallon |
| Quart | Product | Remainder | Line of Symmetry |
| Parallel Lines | Isosceles Triangle | Composite Number | Quadrilateral |
| Right Angle | Obtuse Angle | Intersecting Lines | Protractor |
| Numerator | Right Triangle | Straight Angle | Equilateral Triangle |

vocabulary cards (page 2)


[^0]:    game descriptions

[^1]:    vocabulary cards (page 1)

