## Triangles \& Two-Digit Addition Review page 1 of 2

1 What is the same about all of these triangles?


Mathematicians mark right angles with little squares like these.
All the triangles have one right angle.

2 a All of the triangles in group A have something in common. Fill in the circle next to the triangle that belongs with them.


$\bigcirc$

$\bigcirc$

$\bigcirc$

-
b How do you know the triangle you picked belongs in group A?

## Explanations will vary. Example: It has three equal sides.

3 What do these three triangles have in common?


All of the triangles $\qquad$ have two equal sides.

Triangles \& Two-Digit Addition Review page 2 of 2
4 Add each pair of numbers. Show all your work.
$60+35=95$
$27+61=\underline{88}$
$36+45=\underline{81}$

Work will vary.

| 53 | 48 <br> +64 | 42 <br> +93 |
| ---: | ---: | ---: |
| 117 | 141 | 110 |
|  |  |  |
|  |  | Work will vary. |



5 challenge Fill in the missing digits.
$\begin{array}{r}38 \\ +65 \\ \hline 103\end{array}$
$\begin{array}{r}84 \\ +59 \\ \hline 143\end{array}$
29
87
+77
+106
88
+485

## Triangles page 1 of 2

1 Circle the two triangles that are congruent. Congruent means exactly the same shape and size.


2 Circle the two triangles that are similar. Similar means exactly the same shape, but not necessarily the same size.


3 Add.

| 229 | 448 | 124 | 180 | 229 | 99 | 199 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| +71 | +326 | +255 | +352 | +71 | +216 | +699 |
| $\mathbf{3 0 0}$ | $\mathbf{7 7 4}$ | $\mathbf{3 7 9}$ | 532 | $\mathbf{3 0 0}$ | $\mathbf{3 1 5}$ | $\mathbf{8 9 8}$ |

4 Subtract.

| 162 | 148 | 97 | 108 | 203 | 261 | 448 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\frac{-31}{31}$ | $\frac{-23}{125}$ | $\frac{-65}{32}$ | $\frac{-28}{80}$ | $\frac{-87}{116}$ | $\frac{-15}{246}$ | $\frac{-150}{298}$ |

5 Round each number to the nearest 10 and the nearest 100 .

| Number | Nearest 10 | Nearest 100 |
| :---: | :---: | :---: |
| 342 | 340 | 300 |
| 689 | 690 | 700 |


| Number | Nearsst 10 | Nearest 100 |
| :---: | :---: | :---: |
| 837 | 840 | 800 |
| 906 | 910 | 900 |

Triangles page 2 of 2
6 Angie and Kara share a bedroom. They've been having trouble agreeing on who is doing her fair share of the cleaning. So they decided to lay a rope on the floor to divide the room in half. Each girl is responsible for keeping half the room clean and organized.

a The area of the whole room is 100 square feet. Show your work.

## Work will vary.

b The area of each girl's part of the room is $\qquad$ square feet. Show your work.

## Work will vary.

7 Challenge susie and her mother are planting a flower garden. It will be in the shape of a right triangle. They drew a diagram of the triangle and labeled the dimensions. How much area will the flower garden cover? Show your work.


20 feet

## 350 sq. ft.; work will vary.

## More Polygons \& Time page 1 of 2

1 Circle the quadrilaterals.


2 Draw the following polygons on the grids below. Use a ruler to help make your lines straight.


## Work will vary. Examples shown above.

NAME

## More Polygons \& Time page 2 of 2

3 Write the time shown on each clock.


4 Brad likes to bake brownies. It takes him 15 minutes to mix up all the ingredients. Then the brownies need to bake for 25 minutes. After that they have to cool off for 7 minutes. How long does it take Brad to have brownies ready to eat? Show your work.

## 47 minutes; work will vary.

5 CHALLENGE Kevin is building a large model of a soccer ball out of foam board. A soccer ball is made of 20 hexagons and 12 pentagons. It takes Kevin 6 minutes to measure and cut each hexagon, and it takes him 5 minutes to measure and cut each pentagon.
a It will take Kevin 180 minutes to make all the pieces. Show all your work.

## Work will vary.

b It will take Kevin 3 hours to make all the pieces. Show all your work.

## Work will vary.

## Sorting \& Identifying Quadrilaterals page 1 of 2

1 A trapezoid is a quadrilateral with exactly 1 pair of parallel sides. Circle the 2 sides that are parallel to each other on each of the trapezoids below. Mark the 2 sides that are not parallel to each other with an x on each of the trapezoids below.

## ex



2 A parallelogram is any quadrilateral with 2 pairs of parallel sides. On each of the parallelograms below, circle 1 pair of parallel sides in blue. Circle the other pair of parallel sides in red.


3 Find all the trapezoids below. Color them orange. Find all the parallelograms below. Color them purple. When you finish, you should have 2 quadrilaterals that are not colored.


## Sorting \& Identifying Quadrilaterals page 2 of 2

4 a This shape is a

trapezoid
parallelogram
square
rectangle
b How do you know that the shape is not a parallelogram? Use labeled sketches, numbers, or words to explain. .
Responses will vary. Example: It can't be a parallelogram because it only has one pair of parallel sides, and a parallelogram has two pairs of parallel sides.

5 a This shape is a


- trapezoid
parallelogram $\bigcirc$ rectangle
b How do you know that the shape is not a rectangle? Use labeled sketches, numbers, or words to explain.
Responses will vary. Example: A rectangle has four right angles, and this shape has zero right angles.

6 a This shape is a

b How do you know that the shape is not a trapezoid? Use labeled sketches, numbers, or words to explain.
Responses will vary. Example: A trapezoid has one pair of parallel sides, but this shape has no parallel sides.

## Quadrilateral Matchup page 1 of 2

1 Draw a line connecting each quadrilateral with its description.


## Trapezoid <br> a quadrilateral with exactly 1 pair of parallel sides

Parallelogram
a quadrilateral with 2 pairs of parallel sides opposite each other

## Quadrilateral

 any polygon with 4 sides
## Rhombus

a parallelogram with 4 congruent sides

2 Solve the following:

$\begin{array}{r}7 \\ \times \quad 7 \\ \hline 49\end{array}$


30
$\times 2$
$\times 2$

| 6 | 9 |
| ---: | ---: | ---: |
| $\times \quad 9$ |  |
| $\times 54$ | 36 |
|  | $\times \quad 5$ |

8
$\times 8$
64
8

3
$\times 7$
21

Quadrilateral Matchup page 2 of 2
3 Oranges cost 25 cents for $\frac{1}{2}$ kilogram. How much would 8 kilograms of oranges cost? $\$ 4.00$ or 400

4 Challenge julia wants to bring watermelon for the third grade picnic. Seedless watermelon costs 39 cents for $\frac{1}{2}$ kilogram. One serving of watermelon weighs about 150 grams. There will be 60 people at the picnic.
a How many kilograms of watermelon will Julia need to buy? (Remember, there are 1,000 grams in one kilogram.)

9kg; work will vary. Example:

| servings | mass |
| :---: | :---: |
| 1 | 150 g |
| 2 | 300 g |
| 20 | $3,000 \mathrm{~g} \mathrm{(3} \mathrm{~kg})$ |
| 60 | $9,000 \mathrm{~g} \mathrm{(9kg)}$ |

b How much will that watermelon cost?
\$7.02; work will vary. Example:

| mass | cost |
| :---: | :---: |
| $1 / 2 \mathrm{~kg}$ | $\$ 0.39$ |
| 1 kg | $\$ 0.78$ |
| 10 kg | $\$ 7.80$ |
| 9 kg | $\$ 7.02$ |

## Perimeter Problems page 1 of 2

1 For the quadrilaterals below, measure in centimeters and label as many sides as you need to find the perimeter. Then write an equation to show the perimeter of the quadrilateral, and fill in the answer at the bottom of the box.

| ex <br> Perimeter $=16 \mathrm{~cm}$ | a $4+4+4+4=16$ <br> Perimeter $=16 \mathrm{~cm}$ |
| :---: | :---: |
| b $3+3+3+5=14$ | $2+5+2+5=14$ |

2 Sarah says you only need to measure one side of a square to figure out its perimeter. Do you agree with Sarah? Why or why not? Use labeled sketches, numbers, or words to explain your answer.
Responses will vary. Example: Agree.
If you know for a fact it is a square, you can measure only one side, because all sides of a square are the same length.

## Perimeter Problems page 2 of 2

3 Jacob and his dad are going to make a rabbit pen in the backyard. They have 16 feet of fencing. Help Jacob draw some plans. Sketch and label at least 4 different rectangles with a perimeter of 16 centimeters on the centimeter grid paper below. Write an equation under each sketch to show that the perimeter is actually 16 centimeters. Put a star beside the sketch you think would be best for a rabbit pen.


## Sandbox \& Garden Problems page 1 of 2

1 a Mrs. Smith made a sandbox for her kindergarten students. It is 60 inches wide and 125 inches long. Make a labeled sketch of the sandbox below.

125 in.

## 60 in.

b What is the perimeter of the sandbox? Use your sketch to help solve the problem.

The perimeter of the sandbox is $\qquad$ inches.

2 Mai and her sister Keiko were planting a garden. They made two beds to plant flowers. One was 4 feet by 3 feet. The other was 5 feet by 5 feet. They want to outline the beds with bricks that are each 1 foot long. How many bricks will they need to outline both beds? Show all of your work.


## Work will vary.

They will need $\qquad$ bricks to outline both beds.

## Sandbox \& Garden Problems page 2 of 2

3 DJ Jumpy Frog, who lives in the sisters' garden, says you can also use the number line to show and solve division problems. He says to solve $14 \div 2$, you start at 14 . Then you take equal hops of 2 all the way back to 0 . If you count the number of hops, you get the answer.

a How many hops did it take DJ to get back to 0 ? $\qquad$
b Did he get the right answer to $14 \div 2$ ? $\qquad$
C Why did he take hops of 2 instead of 3 ?

> Responses will vary. Example:
> Because he is dividing by 2, not 3 .

4 Here is another number line picture from DJ .


Write a division equation to go with DJ's picture.
$\square$ $\div$ $\qquad$ $=$ $\qquad$
5 Use the number lines below to show and solve division problems a and b .
a $12 \div 3=\underline{4}$

b $24 \div 4=$ $\qquad$


## Area \& Perimeter Puzzles page 1 of 2

Show your work for each of the problems below, and label your answers with the correct units.

## Work will vary.

1 Find the perimeter of this quadrilateral.


Perimeter $=\quad 70$ feet
2 The perimeter of this rectangle is 24 inches. Use that information to find the length of the side marked $s$ and the area of the rectangle.


Side $s=\quad 5$ inches
Area $=35$ sq. in.
3 The sandbox at the park is perfectly square. Use the information in the picture below to find the perimeter and the area of the sandbox.


Perimeter $=32$ feet
Area $=. \quad 64 \mathrm{sq} . \mathrm{ft}$.

Area \& Perimeter Puzzles page 2 of 2
4 Jake and his mom run laps around the soccer field in their neighborhood. The field is 100 yards by 60 yards, and they run 4 laps around the field each time. When they went to visit Jake's uncle, they did laps around the kids' soccer field in his neighborhood. The field was 30 yards by 55 yards, and they ran 8 laps around it. Did they run more at Jake's uncle's house or in their own neighborhood? Exactly how much more? Show all your work.

## They ran 80 more yards at Jake's uncle's house. Work will vary.



5 CHALLENGE A rectangle has a perimeter of 36 feet. It is twice as long as it is wide. What are the dimensions of the rectangle? Show all your work.

It's 6 feet wide and 12 feet long. Work will vary. Example:

$I+w=18$


## Unit 6 Review page 1 of 2

A quadrilateral is a shape with 4 sides. Here are some different kinds of quadrilaterals.

Trapezoid: a quadrilateral with exactly 1 pair of parallel sides


Mathematicians use little arrows like these to show that two sides are parallel.

Rectangle: a quadrilateral with 2 pairs of parallel sides and 4 right angles


Square: a quadrilateral with 4 right angles and 4 sides that are all the same length


Parallelogram: a quadrilateral with 2 pairs of parallel sides


When a shape has more than one pair of parallel sides, mathematicians use more arrow heads to show which pairs of sides are parallel.

1 Draw in the missing sides to complete each quadrilateral.

| a square | 0 trapezoid * | C parallelogram | c trapezoid * |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1 |  |  | 1 1 |
| 1 |  | $\begin{array}{lllll}1 & 1 & 1 & 1\end{array}$ | ! |
|  | $\left\lvert\, \begin{array}{c:c:c} 1 & 1 & 1 \\ \hdashline 1 & - & 1 \\ 1 & - & - \\ -1 & - & - \\ \hline \end{array}\right.$ |  |  |
|  |  |  |  |

* Work will vary. Examples above.

2 Mayra says that squares and rectangles are parallelograms too, but rhombuses are not. Is she correct? Explain your answer. Use the grid if you want to.


> She is incorrect. Student explanations will vary, Example: Rhombuses always have two pairs of parallel sides, so they are parallelograms.

Unit 6 Review page 2 of 2
3 a When Danny has lots of extra energy, his mom tells him to do laps around the block. His block is 66 yards wide and 80 yards long. How many yards are in one lap around Danny's block? Show all your work.

66 yds.

80 yds .

## 292 yards; work will vary.

b challenge There are 1,760 yards in a mile. How many full laps would Danny have to run around the block to run a mile? Show all your work.

## 7 laps; work will vary.

4 Danny and his mom are building a fenced region for their dog in the backyard. The region measures 18 ft . by 27 ft . The gate they plan to put in is 3 feet wide. How many feet of fencing will they need? Show all your work.


## Patchwork Fractions \& Story Problems page 1 of 2

1 Mark all the fractions that describe the shaded part of each geoboard patchwork quilt block, if the geoboard is 1 square unit.


2 Choose two fractions that you marked in part a above, and explain why they are equivalent.

## Responses will vary.

3 Fill in the bubble next to the equation that will help you solve each word problem. Then solve the problem. Show all your work.
a Kara built a pen for her rabbit. It is 3 feet by 6 feet. What is the area of the pen?
$3+6=a$

- $3 \times 6=a$
$6-3=a$
- $6 \div 3=a$

The rabbit's pen has an area of $\qquad$ 18 square feet.
b Steve's dog buried 27 bones. That's 3 times as many bones as David's dog buried. How many bones did David's dog bury?
$3+27=b$

- $3 \times 27=b$
- $27 \div 3=b$
- $27-3=b$

David's dog buried $\qquad$ 9 bones.

## Patchwork Fractions \& Story Problems page 2 of 2

4 Lee wanted to put a fence around his vegetable garden. His brother asked him to put a fence around his garden, too. Lee's garden was 5 feet wide and 10 feet long. His brother's garden was 6 feet wide and 7 feet long. How many feet of fencing will Lee need? Show all your work.

## 56 feet; work will vary.

5 ChALLENGE After Lee fenced in the two gardens, his neighbor gave him another 26 feet of fencing. Lee and his brother decided to make a rectangle-shaped garden for their little sister.
a Draw and label 4 different ways 26 feet of fencing could be used to outline a rectangle.
Responses will vary. All possibilites with whole number sides are shown below.

b Circle the rectangle that you think would make the best garden and explain why.

## Responses will vary.

