Summer Math Program Fourth Grade

Week 1


## Fast Facts

See how many you can do in one minute!

| $4 \times 5=$ | $6 \times 8=$ | $7 \times 3=$ | $4 \times 8=$ |
| :---: | :---: | :---: | :---: |
| $6 \times 7=$ | $9 \times 9=$ | $3 \times 8=$ | $7 \times 8=$ |
| $3 \times 9=$ | $2 \times 12=$ | $4 \times 7=$ | $5 \times 11=$ |
| $8 \times 8=$ | $7 \times 2=$ | $3 \times 6=$ | $8 \times 4=$ |
| $9 \times 8=$ | $11 \times 8=$ | $6 \times 6=$ | $7 \times 9=$ |

## Decimals and Fractions

1. Mr. Clark was given some change at the grocery store. He was given 5 one dollar bills, 6 quarters, 2 dimes, and a penny. How much change did he get?
a. $\$ 5.62$
b. $\$ 6.71$
c. $\$ 56.21$
d. $\$ 6.21$
2. Write a fraction that is equivalent to 0.45 in simplest form. $\qquad$
3. Draw a picture and explain how $3 / 4$ is equal to $6 / 8$.

## Problem Solving

1. Bobbie was writing an article for the school newspaper about the amount of homework the 4th grade teachers were assigning. He was surprised to find out that the average student only spent 20 minutes per night doing homework. To make it sound longer, he decided to convert the time from minutes to seconds in the article. How many seconds did the average student spend on homework? Explain your answer.

Geometry Time

1. Which type of triangle has only two equal sides, like the drawing below? $\qquad$


## Number Operations

1. Which of the following sets of numbers are all of the factors of 24 ?
a. 1, 3, 8, 24
b. $2,4,6,8,12,24$
c. $2,3,4,6,8,12$
d. $1,2,3,4,6,8,12,24$

## Web Linles

Try these web sites for additional practice and interactive learning!

- Math Magician Games (math fluency)
http://resources.oswego.org/games/mathmagician/cathymath.html
- EduPlace Math eGames - Math Lingo (math vocabulary)
http://www.eduplace.com/kids/mw/swfs/mathlingo_grade4.html


## Summer Math Program Entering Fourth Grade Week 2



## Fast Facts

See how many you can do in one minute!
$3 \times 2=$ $\qquad$ $2 \times 8=$ $\qquad$ $1 \times 9=$ $\qquad$ $2 \times 2=$ $\qquad$
$5 \times 5=$ $\qquad$ $1 \times 8=$ $\qquad$ $6 \times 2=$ $\qquad$
$2 \times 6=$ $\qquad$ $0 \times 3=$ $\qquad$
$3 \times 3=$ $7 \times 3=$ $\qquad$ $4 \times 4=$
$0 \times 2=$ $\qquad$ $5 \times 5=$ $\qquad$
$6 \times 1=$ $\qquad$ $3 \times 5=$ $\qquad$
$6 \times 0=$ $\qquad$
$2 \times 1=$
$\qquad$ $8 \times 1=$ $\qquad$

## Money, Money, Money!

1. Theo has a stack of quarters that equal $\$ 1.50$. How many quarters does Theo have?
a. 6 quarters
b. 15 quarters
c. 20 quarters
2. Tell which coins would be the fewest to make $\$ 0.56$.

## Problem Solving

1. A carton of cereal boxes can hold 8 boxes to be shipped to the grocery store. If the store needs 50 boxes of cereal for an upcoming sale, how many cartons will the store need to order? Explain your answer.

## Measurements

1. Michelle has a string which is 3 feet and 6 inches long and John has a string which is two feet and eight inches long. How much longer is Michelle's string?

Work space
a. 1 foot 2 inches
b. 10 inches
c. 5 feet 14 inches
2. A baseball game started at 7:05 pm and ended at 9:40 pm. How long did the game last?

Work space a. 2 hours 35 minutes
b. 2 hours 30 minutes
c. 1 hour 35 minutes

## Fraction Action

1. Place these fractions where they belong on the ruler:

$$
\begin{array}{lll}
\frac{2}{4} & \frac{6}{8} & \frac{1}{4}
\end{array}
$$



## Web Linles

Try these web sites for additional practice and interactive learning!

- Cash out (making change game)
http://www.mrnussbaum.com/cashout/index.html
- Raceway Number Values
http://www.abcya.com/comparing_number_values.htm



## Fast Fects

See how many you can do in one minute!
$3 \times 2=$ $\qquad$
$\qquad$ $1 \times 9=$ $\qquad$ $2 \times 2=$ $\qquad$
$5 \times 5=$ $\qquad$ $1 \times 8=$
$6 \times 2=$ $\qquad$
$2 \times 6=$ $\qquad$ $0 \times 3=$ $\qquad$
$3 \times 3=$
$7 \times 3=$ $\qquad$
$4 \times 4=$ $\qquad$
$0 \times 2=$ $\qquad$ $5 \times 5=$ $\qquad$
$6 \times 1=$ $\qquad$ $3 \times 5=$ $\qquad$
$6 \times 0=$ $\qquad$
$2 \times 1=$ $\qquad$
$8 \times 1=$ $\qquad$

## Fractions and Money

1. What is another way to represent the fraction $5 / 8$ ?
A. $\frac{3}{5}+\frac{2}{3}$
B. $\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}$
C. $\frac{8}{5}$
2. How many half dollars are there in $\$ 4.50$ ?

## Web Linles

Try these web sites for additional practice and interactive learning!

- Math Playground Grand Slam Word Problems
http://www.mathplayground.com/GrandSlamMath2.html
- EduPlace Brain Teasers
http://www.eduplace.com/kids/mw/bt/bt_3.html


## Geometiry

A plane figure can be closed or open. Closed figures have an inside and an outside.


Some special polygons have specific names.


Triangle
3 sides sides


Pentagon
5 sides

Square
4 equal


Rectangle
4 sides


Hexagon 6 sides 8 sides

A polygon is a closed plane figure that has three or more sides. Each side is a line segment.


Polygons can be classified as regular or irregular.


Regular polygons have all sides equal and all angles equal.


Irregular polygons do not have all sides equal or all angles equal.

Tell whether each figure is a polygon. If it is, write its name.
1.

2.

3.

4.


Find several real examples of regular and irregular polygons over the next week during your summer break. Draw a picture of each object you find, tell the name of the shape, and tell if it is regular or irregular.

## Summer Math Program Entering Fourth Grade <br> Week 4



Fast Facts
See how many you can do in one minute!
$6 \times 4=\quad 4 \times 8=$
$8 \times 9=$ $\qquad$ $10 \times 9=$ $\qquad$ $4 \times 12=$
$8 \times 8=$ $\qquad$ $3 \times 8=$
$6 \times 6=$ $\qquad$ $12 \times 6=\quad 10 \times 3=$ $\qquad$
$9 \times 3=$ $\qquad$ $7 \times 9=$
$3 \times 8=$ $\qquad$ $10 \times 12=$ $12 \times 5=$ $\qquad$
$6 \times 7=$ $\qquad$
$4 \times 5=$ $\qquad$
$6 \times 5=$ $\qquad$
$12 \times 11=$ $\qquad$ $8 \times 11=$
$\qquad$

## Fractions and Money

1. Using this number line and another identical number line cut out of paper, find 3/4-2/4.

a. $\frac{\frac{1}{4}}{\frac{1}{2}}$
c. 0
2. Ben, Susan, Alex, and Tonya each received $1 / 4$ of a dollar. How much is that? $\qquad$

## Web Links

Try these web sites for additional practice and interactive learning!

- Lemonade Stand - interactive site with economics in mind http://www.lemonadestands.com/
- Hoops - word problem game http://www.mathplayground.com/mathhoops_Z1.html


## Geometry



Identify each line.

2.

3.

4.

5.


Draw.
6. $\overline{\mathrm{EF}}$

## $\overrightarrow{\mathrm{OP}}$

7. $\overleftrightarrow{J k} / / \overleftrightarrow{M}$
8. $\overleftrightarrow{~ U V}$

9. Find three examples of parallel lines and three examples of perpendicular lines in your home.

## Fast Facts

See how many you can do in one minute!

| $4 \times 5=$ | $6 \times 8=$ | $7 \times 3=$ | $4 \times 8=$ |
| :---: | :---: | :---: | :---: |
| $6 \times 7=$ | $9 \times 9=$ | $3 \times 8=$ | $7 \times 8=$ |
| $3 \times 9=$ | $2 \times 12=$ | $4 \times 7=$ | $5 \times 11=$ |
| $8 \times 8=$ | $7 \times 2=$ | $3 \times 6=$ | $8 \times 4=$ |
| $9 \times 8=$ | $11 \times 8=$ | $6 \times 6=$ | $7 \times 9=$ |

## Fractions and Money

Write a fraction for the part of each shape that is shaded.
Then write a fraction for the part that is not shaded.
1.


Shaded
Not shaded
2.


Shaded $\qquad$
Not shaded
3.


Shaded
Not shaded
4.


Shaded $\qquad$

Name the equivalent fractions shown.
1.

| 1 whole |  |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{1}{4}$ | $\frac{1}{4}$ |  |  |
| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |

$\frac{2}{4}=\frac{\square}{8}$
2.

$\frac{1}{3}=\frac{\square}{6}$
3.

| 1 whole |  |  |
| :--- | :---: | :---: |
| $\frac{1}{5}$ | $\frac{1}{5}$ |  |
| $\frac{1}{10}\left[\frac{1}{10}\right.$ | $\frac{1}{10}$ | $\frac{1}{10}$ |

$$
\frac{2}{5}=\frac{\square}{10}
$$

Compare. Write > or < for each $\bigcirc$.
1.

2.

3.


$\frac{2}{4} \bigcirc \frac{3}{4}$
$\frac{4}{5} \bigcirc \frac{3}{5}$

Compare. Write >, <, or = for each $\bigcirc$.

1. $\frac{3}{4} \bigcirc \frac{1}{8}$
2. $\frac{1}{3} \bigcirc \frac{2}{9}$
3. $\frac{5}{10} \bigcirc \frac{3}{5}$
4. $\frac{3}{8} \bigcirc \frac{2}{6}$

Add or subtract. Use fraction strips to help you.

1. $\frac{1}{8}+\frac{5}{8}$
2. $\frac{2}{9}+\frac{1}{9}$
3. $\frac{7}{10}-\frac{6}{10}$
4. $\frac{5}{8}-\frac{1}{8}$
5. $\frac{12}{13}-\frac{2}{13}$
6. $\frac{4}{9}-\frac{1}{9}$
7. $\frac{2}{10}+\frac{5}{10}$
8. $\frac{4}{9}+\frac{2}{9}$

Solve.

1. Pete had 2 blue shirts, 2 white shirts, and 2 pink shirts. He put $\frac{1}{2}$ of the shirts in the wash. How many shirts did Pete put in the wash?

Solve.

1. Eva has $\$ 4.00$ to spend on apples. Each apple costs $\$ 0.50$. How many apples can Eva buy? $\qquad$
2. A soft drink costs $\$ 0.50$. How many quarters would you need to buy it? $\qquad$

## Web Linlzs

Try these web sites for additional practice and interactive learning!

- Two-Digit Multiplicaton
http://www.mathplayground.com/multiplication05.html
- Extra practice for place value and money
http://www.eduplace.com/kids/mw/practice/4/ep4_01.html


## - Geometry



Identify each line.

2.

3.

4.

5.


Draw.
6. $\overline{\mathrm{EF}}$

## $\overrightarrow{\mathrm{OP}}$

7. $\overleftrightarrow{J k} / / \overleftrightarrow{M}$
8. $\overleftrightarrow{~ U V}$

9. Find three examples of parallel lines and three examples of perpendicular lines in your home.

Summer Math Program
Entering Fourth Grade
Week 6


## Fast Fects

## See how many you can do in one minute!

| $6 \times 6=$ | $4 \times 4=$ | $9 \times 12=$ | $5 \times 9=$ |
| :---: | :---: | :---: | :---: |
| $9 \times 4=$ | $4 \times 3=$ | $0 \times 5=$ | $12 \times 9=$ |
| $8 \times 10=$ | $3 \times 11=$ | $6 \times 9=$ | $4 \times 5=$ |
| $2 \times 6=$ | $8 \times 6=$ | $9 \times 4=$ | $7 \times 8=$ |
| $6 \times 9=$ | $10 \times 7=$ | $4 \times 11=$ | $9 \times 1=$ |

## Which Operation Fits?

1. The division expression $354 \div 6$ can be used to solve which of the following problems?
a. How many school children there will be if 6 new students enroll at a school with 354 students?
b. How many school children will there be in a school if 6 students move away from a school with 354 students?
c. How many tables for 6 are needed to sit 354 people?
d. How many celery plants are planted in 6 rows if each row has 354 plants?
2. A third grade sports club raised money to buy t-shirts. There were 10 students on the team. Each student raised 4 dollars. Which of the following could be used to find out how much money the students raised all together?
a. $10+4$
b. $10-4$
c. $10 \times 4$
d. $10 \div 4$
3. There are 36 pieces of gum in a bag. Mom empties the bag by giving 6 pieces to each of her children. How many children does she have?
a. $36 \div 6=6$ children
b. $36+6=42$ children
c. $36 \div 9=4$ children
d. $36-30=6$ children

## Geometry Gems

1. How many triangles would it take to make this hexagon?

2. How many right triangles would it take to make a square? Answer the question, then show your answer by making a drawing.

3. Make a drawing to show how you could put together 2 triangles and a square to make a parallelogram.
4. Color sets of parallel faces of these rectangular prisms the same color.

5. Fill in the table to show your understanding of two-dimension shapes.

|  <br> drawing | Number of <br> Angles | Number of <br> Sides | Number of <br> Vertices | Number of Line <br> Segments |
| :---: | :---: | :---: | :---: | :---: |
| Trapezoid |  |  |  |  |
| Circle |  |  |  |  |
| Square |  |  |  |  |
| Rectangle |  |  |  |  |
| Rhombus |  |  |  |  |

## Web Linlzs

Try these web sites for additional practice and interactive learning!

- Pumpkin Multiples
http://www.mathplayground.com/multiples.html
- Extra practice for multiplication and division
http://www.eduplace.com/kids/mw/practice/3/ep3_08.html


## Exciting Extross

The following resources are to help your mathematician with fractions and math fluency. Please use the fraction strips (last page) to compare fractions (e.g., $\frac{3}{4}$ is bigger than $\frac{1}{2}$ but smaller than $5 / 6$ ), find equivalent fractions (e.g., $5 / 10$ is equal to $\frac{1}{2}$ which is equal to $3 / 6$ ), and for familiarity with how big or little fractions are relative to one whole. The link below takes you to a website for age-appropriate flashcards you can print and use to practice math fluency. Enjoy!!
http://www.helpingwithmath.com/resources/oth_flashcards.htm

Fraction Strips


Summer Math Program
Entering Fourth Grade
Week 7


## Fast Facts

See how many you can do in one minute!

| $4 \times 7=$ | $5 \times 7=$ | $6 \times 10=$ | $7 \times 7=$ |
| :---: | :---: | :---: | :---: |
| $3 \times 8=$ | $9 \times 3=$ | $7 \times 5=$ | $12 \times 4=$ |
| $2 \times 12=$ | $4 \times 11=$ | $9 \times 9=$ | $7 \times 9=$ |
| $4 \times 9=$ | $8 \times 8=$ | $4 \times 4=$ | $3 \times 6=$ |
| $2 \times 5=$ | $12 \times 7=$ | $4 \times 8=$ | $12 \times 8=$ |

## Fraction Operations

1. Add. Use fraction strips or draw pictures to help you. (See last week's sheets for fraction strips.)

$$
\begin{aligned}
& \frac{2}{4}+\frac{1}{4}= \\
& \frac{3}{9}+\frac{4}{9}=
\end{aligned}
$$

$$
\frac{1}{5}+\frac{3}{5}=
$$

$$
\frac{2}{10}+\frac{3}{10}=
$$

2. Subtract. Use fraction strips or draw pictures to help you.

$$
\begin{array}{ll}
\frac{6}{10}-\frac{2}{10}=\square & \frac{4}{6}-\frac{2}{6}= \\
\frac{9}{9}-\frac{7}{9}=\square & \frac{5}{9}-\frac{1}{9}=
\end{array}
$$

3. Solve.

Olga made borscht, a beet soup popular in Russia. Her soup had $\quad \frac{5}{8}$ pound of shredded beets and $\quad \frac{2}{8}$ pound of shredded cabbage. How much beets and cabbage
did Olga use in all? did Olga use in all?

## Bar Graph Bonanza:

1. (Use the Number of Points Scored graph for 1-3.) This chart shows how many points were scored by members of a basketball team. How many players scored 10 or more
 points?
2. What is the range of points scored between all the players?
3. What is the minimum and maximum of the data shown in this bar graph?
4. (Use the Speeds of Animals graph for 4-5.) Which three animals run about the same speed?
$\qquad$
5. If you were traveling 30 miles per hour, would you be slower or faster than the rabbit?

6. (Use the Number of Visitors to Museum and Number of Visitors to Aquarium graphs.) How many more people attended the museum than the aquarium on Sunday?



## Web Links

Try these web sites for additional practice and interactive learning!

- Math Fact Practice!
http://www.playkidsgames.com/games/mathfact/mathFact.htm
- e-learning For Kids
http://www.e-learningforkids.org/courses.html\#math

Summer Math Program
Entering Fourth Grade
Week 8


Fast Fects
See how many you can do in one minute!

| $5 \times 10=$ | $8 \times 9=$ | $1 \times 1=$ | $7 \times 9=$ |
| :--- | :--- | :--- | :--- |
| $6 \times 3=$ | $4 \times 3=$ | $2 \times 7=$ | $6 \times 8=$ |
| $8 \times 7=$ | $1 \times 9=$ | $10 \times 8=$ | $8 \times 8=$ |
| $3 \times 9=$ | $3 \times 1=$ | $10 \times 1=$ | $7 \times 6=$ |
| $9 \times 8=$ | $9 \times 1=$ | $5 \times 8=$ | $2 \times 9=$ |

Geometry
Estimate the area of each figure. Each
$\square=1$ square unit.
1.

2.

3.

4.

5.

6.

7.

8.

9.


Name these 3-D shapes.

$\qquad$

$\qquad$


1. Give an example of a time when you would need to find the length of an object.
2. Give an example of a time when you would need to find the area of an object.
3. For each example below, tell whether you are looking for length or area.

Finding how much rope is needed for a tug-of-war game $\qquad$
Finding how much wallpaper is needed to cover the wall $\qquad$
Finding a piece of wrapping paper to cover a package $\qquad$
Finding the distance from the beginning to end of a hallway $\qquad$

## MEASUREMENT

Add or subtract the following measurements.

1. 6 hours, 25 minutes
+2 hours, 10 minutes
2. 2 feet, 5 inches
-1 foot, 3 inches

## PROBLEM SOLVING

The diagram below shows Julie's plan for her garden. Use the diagram to solve Problems 1-4.

1. What is the perimeter of the herb section of Julie's garden?
2. What did Julie plant in the largest section in her garden? What is the perimeter of that section?
3. Which two sections of her garden have the same perimeter? What is their perimeter?

## Use the diagram to solve each problem.

Show your work.

1. The diagram at right shows the design of a tiled patio. The patio surrounds a fountain in Jefferson Park. Each tile on the patio covers 1 square foot. What is the area of the patio, in square feet?
2. Which has the greater area, the
 patio or the fountain? How much greater, in square feet?
3. The city is replacing the tiles on the patio around the fountain next year. Each tile costs $\$ 4$. How much will it cost to replace all the tiles?

## Web Linlzs

Try these web sites for additional practice and interactive learning!

- Math Live
http://www.learnalberta.ca/content/me5l/html/math5.html
- Learn Your Tables
http://www.learnyourtables.co.uk/


## Week 9



Fast Facts
See how many you can do in one minute!

| $4 \times 9=$ | $6 \times 1=$ | $3 \times 7=$ | $3 \times 2=$ |
| :--- | :--- | :--- | :--- |
| $5 \times 6=$ | $1 \times 4=$ | $1 \times 3=$ | $7 \times 3=$ |
| $3 \times 8=$ | $8 \times 3=$ | $5 \times 5=$ | $5 \times 1=$ |
| $5 \times 3=$ | $5 \times 9=$ | $10 \times 4=$ | $7 \times 1=$ |
| $2 \times 8=$ | $4 \times 7=$ | $6 \times 2=$ | $10 \times 6=$ |

## Geometry

Find the area of each figure. Label your answer in square units. Each $\square$ or : : = 1 square unit.
1.

2.

3.

4.

5.

6.

7. $\qquad$
8.

9.


Tell how many faces, vertices, and edges each shape has.


Faces $\qquad$
Vertices $\qquad$
Edges $\qquad$


Faces $\qquad$
Vertices $\qquad$
Edges $\qquad$

Use a ruler to draw two squares. One square should be one inch on each side. The other square should be one centimeter on each side. Then answer the questions that follow.

Square inch

## Square centimeter

1. What do you notice about the difference in size between the two shapes?
2. What real-life object is about one square inch in size? $\qquad$
3. What real-life object is about one square centimeter in size?

## MEASUREMENT

Add or subtract the following measurements.

1. 4 pounds, 3 ounces
+4 pounds, 9 ounces
2. 8 minutes, 30 seconds

- 8 minutes, 25 seconds

Answer the following questions.

1. How many inches are in one foot? $\qquad$
2. Name an object that is about one inch in length. $\qquad$
3. Name an object that is about one foot in length. $\qquad$
4. How many centimeters are in one meter? $\qquad$
5. Name an object that is about one meter in length. $\qquad$
6. At what temperatures does water freeze? $\qquad$ Fahrenheit $\qquad$ Celcius
7. At what temperatures does water boil? $\qquad$ Fahrenheit $\qquad$ Celcius
8. Which is cooler, $100^{\circ}$ Fahrenheit or Celcius? $\qquad$

## Web Links

Try these web sites for additional practice and interactive learning!

- Bridge Builders
http://www.mathplayground.com/FractionGame/FractionGame.html
- Robo Packer
http://www.eduplace.com/kids/mw/swfs/robopacker_grade4.html

Summer Math Program Entering Fourth Grade

Week 10


## Fast Fects

See how many you can do in one minute!
$2 \times 10=$
$1 \times 8=$
$1 \times 2=$
$9 \times 9=$
$6 \times 10=$
$1 \times 7=$
$4 \times 2=$
$6 \times 4=$
$9 \times 5=$
$4 \times 4=$
$4 \times 5=$
$9 \times 2=$
$9 \times 6=$
$9 \times 7=$
$6 \times 9=$
$2 \times 5=$
$9 \times 10=$
$4 \times 1=$
$2 \times 6=$
$2 \times 3=$

## Problem Solving

Solve the following problems with multiplication or division. You can draw a picture to help.

1. A trip from New Orleans to Houston and back is about 700 miles. How many miles a month would you travel if you made this trip twice a month?
2. Melissa has 38 dyed eggs. She wants to store them in cartons of 12 eggs each. How many cartons will be full? How many eggs will be in the carton that is not full?
3. Liam organized 28 video games in boxes. He put 5 games in each box. How many full boxes does he have? How many video games are in the box that is not full?
4. Drew wants to put 69 paper clips into 3 boxes. He wants the same number of paper clips in each box. How many paper clips should he put in each box? Explain how you found your answer.

## Geometry

Name the solid figure that each object looks like.
1.

2.

3.

4.


Name the solid figures that make up each object.
5.

6.

7.

8.


Draw the front, side, and top views of each shape made with cubes.
1.

2.

3.


Find the perimeter.


## TIME FOR TIME

1. Miguel promised to practice the piano for 45 minutes. The clocks at right show what time he started and stopped practicing. Did Miguel keep his promise? Explain.

2. Miguel practiced 3 songs between 10:00 A.M. and 10:45 A.m. He spent the same amount of time on each song. At what time did he start practicing each song?

## Web Linlks

Try these web sites for additional practice and interactive learning!

- Cool Math
http://www.coolmath.com/
- Primary Games
http://www.primarygames.com/math.php

