Do you know which instrument goes “ring-ring”? The saxophone! Maria’s saxophone has 23 keys on it. Rounded to the nearest ten, how many keys are on the saxophone?

- A. 23 keys
- B. 30 keys
- C. 25 keys
- D. 20 keys

A stamp is special because it can travel the whole world while staying in one corner! Liesel collects stamps and has 742 in her collection. How many stamps does Liesel have rounded to the nearest hundred?

- A. 740 stamps
- B. 750 stamps
- C. 700 stamps
- D. 800 stamps

Mrs. Deegan crowned her student Doris as Duchess of Division. Rounded to the nearest hundred, Doris’ crown has 300 jewels on it. How many jewels could her crown actually have?

- A. 298 jewels
- B. 351 jewels
- C. 398 jewels
- D. 248 jewels

David took his Dalmatian to the cleaners because it was covered in spots. In fact, rounded to the nearest hundred, his Dalmatian has 500 spots! Which of the following could be the exact number of spots that David’s Dalmatian has?

- A. 524 spots
- B. 568 spots
- C. 448 spots
- D. 50 spots
**DIVISION**

1. The number by which another number is divided is the ____.
   - A. product
   - B. divisor
   - C. dividend
   
   \[12 \div 4 = 3\]

2. The number being divided in a division problem is called the ____.
   - A. dividend
   - B. factor
   - C. divisor
   
   \[12 \div 4 = 3\]

3. The answer in a division problem is called the ____.
   - A. product
   - B. quotient
   - C. difference
   
   \[12 \div 4 = 3\]

**DIVISION**

Tina has 8 pieces of pumpkin candy that she wants to put into 2 bags. How many candies should she put into each bag to make equal groups?

1. How many equal groups will Tina make?
   - A. 8 groups
   - B. 2 groups
   - C. 10 groups

2. Which equation could help you solve the problem?
   - A. \(8 + 8 = 16\)
   - B. \(2 + 2 = 4\)
   - C. \(8 \div 2 = 4\)

3. How many candies should she put in each bag to make equal groups?
   - A. 4 candies
   - B. 8 candies
   - C. 2 candies
**Multiplication Facts**

6 x 9 =

- A. 15
- B. 3
- C. 54
- D. 42

6 x 8 =

- A. 48
- B. 14
- C. 36
- D. 54

8 x 9 =

- A. 76
- B. 72
- C. 74
- D. 17

7 x 8 =

- A. 54
- B. 15
- C. 42
- D. 56
Comparing Fractions

7. Find the missing sign.

\[ \frac{1}{4} \quad \frac{3}{4} \]

A. > greater than
B. < less than
C. = equal to

8. Find the missing sign.

\[ \frac{5}{6} \quad \frac{3}{6} \]

A. > greater than
B. < less than
C. = equal to

Find the missing sign.

\[ \frac{2}{3} \quad \frac{1}{3} \]

A. > greater than
B. < less than
C. = equal to

Find the missing sign.

\[ \frac{3}{8} \quad \frac{7}{8} \]

A. > greater than
B. < less than
C. = equal to
EQUIVALENT FRACTIONS

9. Find the equivalent fraction.

\[ \frac{1}{4} = ? \]

- A. \( \frac{2}{8} \)
- B. \( \frac{2}{6} \)
- C. \( \frac{6}{8} \)

10. Find the equivalent fraction.

\[ 1 = ? \]

- A. \( \frac{1}{2} \)
- B. \( \frac{2}{2} \)
- C. \( \frac{1}{3} \)

Find the equivalent fraction.

\[ \frac{1}{2} = ? \]

- A. \( \frac{1}{4} \)
- B. \( \frac{2}{4} \)
- C. \( \frac{2}{2} \)

Find the equivalent fraction.

\[ \frac{2}{3} = ? \]

- A. \( \frac{2}{4} \)
- B. \( \frac{4}{6} \)
- C. \( \frac{3}{6} \)
Goldilocks and her 3 friends went for a picnic in the woods. They left for the picnic at 12:00 and returned 2 hours and 30 minutes later. What time was it when they returned?

A. 1:30 
B. 2:00 
C. 2:30 
D. 3:30

Two whales played Marco Polo from 2:30 to 5:00. How long did they play the game?

A. 3 hours and 30 minutes 
B. 1 hour and 30 minutes 
C. 2 hours and 30 minutes 
D. 3 hours

Macon Crumbs began eating lunch at 12:00 noon and finished 30 minutes later. What time did Macon finish lunch?

A. 11:30 A.M. 
B. 1:00 P.M. 
C. 12:30 P.M. 
D. 1:30 P.M.

Ben and his daughter went fishing. They started fishing at 10:00 and finished at 11:30. How long did they fish?

A. 1 hour 
B. 1 hour and 30 minutes 
C. 2 hours 
D. 2 hours and 30 minutes
A customary unit for measuring small amounts of liquid, such as a can of soda, is called a ____.

- A. cup
- B. quart
- C. gallon

A customary unit for measuring medium amounts of liquid, such as a pitcher of lemonade, is called a ____.

- A. cup
- B. quart
- C. gallon

A customary unit for measuring large amounts of liquid, such as a large container of milk, is called a ____.

- A. cup
- B. quart
- C. gallon

Which unit of measure would be best to measure the amount of milk used to make a mug of hot cocoa?

- A. cup
- B. quart
- C. gallon

Which unit of measure would be best to measure the amount of paint in a large can of paint?

- A. cup
- B. quart
- C. gallon

Which unit of measure would be best to measure the amount of water in a bath tub?

- A. cup
- B. quart
- C. gallon
Sarah the Snake is putting new rep-tiles on her kitchen floor. Her floor is 8 feet long by 8 feet wide. If she buys 1 foot square tiles, how many tiles will she need?

- A. 16 tiles
- B. 64 tiles
- C. 32 tiles
- D. 100 tiles

The bottom of the lollipop box is the shape of a rectangle. The bottom of the box covers a rectangular area that is 8 inches long by 6 inches wide. What is the area of the bottom of the box?

- A. 48 square inches
- B. 14 square inches
- C. 28 square inches
- D. 68 square inches

Tracy said she built a square-headed robot when she put her sandwich next to a candy bar. Her sandwich was 4 inches wide by 4 inches long. The candy bar was 2 inches wide by 5 inches long. What was the total area of Tracy’s robot?

1. What is the area of the rectangle?
   - A. 7 inches
   - B. 10 square inches
   - C. 14 inches

2. What is the area of the square?
   - A. 16 square inches
   - B. 8 inches
   - C. 20 square inches

3. Which equation shows the total area of Tracy’s robot?
   - A. $7 + 8 = 15$ inches
   - B. $14 + 16 = 30$ square inches
   - C. $10 + 16 = 26$ square inches
Lee ate 2 cherries on Monday, 5 cherries on Tuesday, 8 cherries on Wednesday, and 11 cherries on Thursday. If this pattern continues, how many cherries will Lee eat on Friday?

2 5 8 11?

1. The numbers in the pattern are
   - A. staying the same
   - B. decreasing
   - C. increasing

2. How many more cherries does Lee eat each day than the day before?
   - A. 3 cherries
   - B. 2 cherries
   - C. 5 cherries

3. How many cherries will Lee eat on Friday?
   - A. 14 cherries
   - B. 11 cherries
   - C. 5 cherries

Dorothy earns stickers for each day she does her homework. On Monday she earns 3 stickers, on Tuesday 5 stickers, and on Wednesday 7 stickers. If the pattern continues, how many stickers will she earn on Friday?

<table>
<thead>
<tr>
<th>Day of the week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stickers</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. What is the rule in this pattern?
   - A. Add all the stickers together.
   - B. Subtract 2 from the number of stickers the day before.
   - C. Add 2 to the number of stickers from the day before.

2. How many stickers will Dorothy earn on Thursday?
   - A. 7 stickers
   - B. 9 stickers
   - C. 11 stickers

3. How many stickers will Dorothy earn on Friday?
   - A. 7 stickers
   - B. 9 stickers
   - C. 11 stickers
**ADDITION**

There are 124 zoom-zoom birds living in a jungle. There are 1,651 different kinds of animals living in the jungle. If 560 more zoom-zoom birds migrate to the jungle, how many zoom-zoom birds will be living there altogether?

1. Which number is NOT needed to solve the problem?
   - A. 124
   - B. 1,651
   - C. 560

2. Which equation could you use to solve the problem?
   - A. $124 + 560 = \underline{\hspace{2cm}}$
   - B. $560 - 124 = \underline{\hspace{2cm}}$
   - C. $1,651 + 124 = \underline{\hspace{2cm}}$

3. How many zoom-zoom birds live in the jungle altogether?
   - A. 1,268 birds
   - B. 560 birds
   - C. 684 birds

**SUBTRACTION**

Ribbit! Janie’s pet frog jumped 24 centimeters, and Cullen’s frog jumped 42 centimeters. How much farther did Cullen’s frog jump?

- A. 66 cm
- B. 22 cm
- C. 20 cm
- D. 18 cm

Get your donut burgers! Chocolate bar burgers for sale! At Burger-Mania, burger lovers can order any type of burger they’d like. According to the menu, how much more is a Brownie Sundae Burger than a Banana Burger?

- A. $0.20
- B. $0.10
- C. $0.50
- D. $0.30
Jesse has 12 books. She has a bookshelf with 3 shelves. She wants to put the same number of books on each shelf. How many books will go on each shelf?

1. Which shows a way to solve the problem?  
   A. $12 + 3$  
   B. $12 + 4$  
   C. $12 \times 3$

2. How many books will go on each shelf?  
   A. 6 books  
   B. 4 books  
   C. 3 books

3. Which picture shows Jesse’s shelves?
   A.  
   B.  
   C.  

The workers in the cafeteria have prepared 30 peanut butter-and-pickle sandwiches. They want to put 5 sandwiches in each stack. How many stacks of 5 sandwiches will they make?

1. Which equation shows how the workers could solve this problem?  
   A. $30 \times 5 = \square$  
   B. $3 + 5 = \square$  
   C. $30 \div 5 = \square$

2. How many stacks of 5 sandwiches can the workers make?  
   A. 5 stacks  
   B. 6 stacks  
   C. 7 stacks

3. How many extra sandwiches will be left over?  
   A. 0 sandwiches  
   B. 1 sandwich  
   C. 2 sandwiches
Division Facts

6) 36

- A. 5
- B. 6
- C. 3
- D. 7

4) 24

- A. 5
- B. 4
- C. 8
- D. 6

3) 21

- A. 7
- B. 24
- C. 6
- D. 8

6) 48

- A. 7
- B. 42
- C. 6
- D. 8
**Comparing Fractions**

Find the equivalent fraction.

\[
\begin{align*}
1 & = ? \\
\text{A. } & \frac{1}{3} \\
\text{B. } & \frac{2}{3} \\
\text{C. } & \frac{3}{3}
\end{align*}
\]

Find the equivalent fraction.

\[
\begin{align*}
\frac{3}{4} & = ? \\
\text{A. } & \frac{6}{8} \\
\text{B. } & \frac{2}{6} \\
\text{C. } & \frac{3}{8}
\end{align*}
\]

**Fractions**

Bennett cut a pie into 6 equal slices. He sprinkled sugar on \( \frac{1}{2} \) of the slices. How many of the 6 slices had sugar sprinkled on them?

1. Which diagram could help you solve this problem?

\[
\begin{align*}
\text{A. } & \text{Diagram A} \\
\text{B. } & \text{Diagram B} \\
\text{C. } & \text{Diagram C}
\end{align*}
\]

2. This question is asking for a fraction equivalent to \( \frac{1}{2} \). One-half of six is

\[
\begin{align*}
\text{A. } & \text{4 slices} \\
\text{B. } & \text{2 slices} \\
\text{C. } & \text{3 slices}
\end{align*}
\]

3. How many of the 6 slices had sugar sprinkled on them?

\[
\begin{align*}
\text{A. } & \text{2 slices} \\
\text{B. } & \text{3 slices} \\
\text{C. } & \text{6 slices}
\end{align*}
\]
Fractions

Daniel and Alley each have the same kind of candy bar. Daniel ate one-half of his. Alley ate one-fourth of hers. Who ate more of the candy bar?

1. What fractions show the amounts Daniel and Alley ate?
   - A. Daniel \( \frac{1}{2} \), Alley \( \frac{1}{4} \)
   - B. Daniel \( \frac{1}{4} \), Alley \( \frac{1}{2} \)
   - C. Daniel \( \frac{1}{2} \), Alley \( \frac{1}{2} \)

2. Is \( \frac{1}{2} \) greater than \( \frac{1}{4} \)?
   - A. No, \( \frac{1}{2} \) is greater than \( \frac{1}{4} \) because 4 is greater than 2.
   - B. Yes, \( \frac{1}{2} \) is greater than \( \frac{1}{4} \) because when you divide a candy bar into 2 parts, the parts are bigger than if you divide the candy bar into 4 parts.
   - C. No, they are the same.

3. Who ate more of the candy bar?
   - A. Daniel
   - B. Alley
   - C. They ate the same amount.

Money

Kelly gets paid fifty cents for walking 1 dog. She walked 7 dogs this week. How much money did she earn this week?

1. Which equation shows one way to solve this problem?
   - A. \( 50 + 7 = \)
   - B. \( 7 + 7 + 7 + 7 + 7 + 7 + 7 = \)
   - C. \( 50 + 50 + 50 + 50 + 50 + 50 + 50 = \)

2. Which equation shows another way to solve this problem?
   - A. \( 50 \times 7 = \)
   - B. \( 50 - 7 = \)
   - C. \( 50 \div 7 = \)

3. How much money did Kelly earn this week?
   - A. 700¢ (or $7.00)
   - B. 500¢ (or $5.00)
   - C. 350¢ (or $3.50)
Grade 3 at HOME

MATH BOOK 2

1. Which number sentence shows how to find the change Gia received?
   - A. $5.00 - $4.16
   - B. $4.16 - $5.00
   - C. $5.00 - $4.00

2. Which shows how to subtract to solve this problem?
   - A. \[
   \begin{array}{c}
   \text{\$5.00} \\
   \underline{- \text{\$4.16}} \\
   \text{\$0.84}
   \end{array}
   \]
   - B. \[
   \begin{array}{c}
   \text{\$5.00} \\
   \underline{- \text{\$4.16}} \\
   \text{\$0.84}
   \end{array}
   \]
   - C. \[
   \begin{array}{c}
   \text{\$4.16} \\
   \underline{- \text{\$5.00}} \\
   \text{\$0.84}
   \end{array}
   \]

3. How much change did Gia receive?
   - A. $0.16
   - B. $0.84
   - C. $0.72

A unit for measuring small amounts of liquid, such as a small bottle of shampoo, is called a _____.
   - A. milliliter
   - B. liter
   - C. meter

A unit for measuring medium-to-large amounts of liquid, such as a large bottle of soda, is called a _____.
   - A. milliliter
   - B. liter
   - C. meter

Which unit of measure would be best to measure the amount of gasoline in a car?
   - A. milliliter
   - B. liter
   - C. kilometer
LIQUID VOLUME (METRIC UNITS)

Which unit of measure would be best to measure a spoonful of cough medicine?

- A. milliliter
- B. liter
- C. meter

Which unit of measure would be best to measure the amount of water in a small water bottle?

- A. milliliter
- B. liter
- C. kilometer

Which unit of measure would be best to measure the amount of water in a bath tub?

- A. milliliter
- B. liter
- C. kilometer

SHAPES

A polygon with 4 sides is a ___.

- A. triangle
- B. quadrilateral
- C. pentagon

A four-sided polygon whose opposite sides are parallel and congruent (the same length) is a ___.

- A. trapezoid
- B. triangle
- C. parallelogram

A four-sided polygon that has exactly one pair or parallel sides is a ___.

- A. trapezoid
- B. parallelogram
- C. rhombus
TRUE or FALSE? A parallelogram is a type of quadrilateral.

A. True
B. False

TRUE or FALSE? All rectangles are squares.

A. True
B. False

TRUE or FALSE? Both a square and a rhombus have 4 equal (congruent) sides.

A. True
B. False

Mr. Table's class is stacking chairs after school. They make 4 stacks of chairs. Each stack has 1 more chair than the stack before it. The 1st stack has 2 chairs.

How many chairs are in the 3rd stack?

1. How many chairs are in the 2nd stack?
   - A. 1 chair
   - B. 2 chairs
   - C. 3 chairs

2. Which number sentence shows how to find how many chairs are in the 3rd stack?
   - A. 1 + 2
   - B. 3 + 3
   - C. 3 + 1

3. How many chairs are in the 3rd stack?
   - A. 2 chairs
   - B. 4 chairs
   - C. 5 chairs
Mr. File is putting sheets of paper into folders. He put 48 sheets into the first folder, 24 sheets into the second folder, and 12 sheets into the third folder. If this pattern continues, how many sheets will he put into the fifth folder?

<table>
<thead>
<tr>
<th>Folder</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheets of Paper</td>
<td>48</td>
<td>24</td>
<td>12</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

1. What is the rule in this pattern?
   - A. Divide the number of sheets in each folder by 2 to find the number of sheets in the next folder.
   - B. Divide the number of sheets in each folder by 4 to find the number of sheets in the next folder.
   - C. Subtract 12 from the number of sheets in each folder to find the number of sheets in the next folder.

2. How many sheets will Mr. File put into the 5th folder?
   - A. 5 sheets
   - B. 3 sheets
   - C. 6 sheets

A straight path that goes on in both directions without ending is called a ____.
   - A. line
   - B. ray
   - C. line segment

A part of a line that has two endpoints is called ____.
   - A. a ray
   - B. an angle
   - C. a line segment

A part of a line that has one endpoint and goes without end in one direction is called ____.
   - A. an angle
   - B. a ray
   - C. a line segment
CHALLENGE!

GEOMETRY

Moving a figure along a line in any direction without changing its shape or size is called a ____.

☐ A. flip
☐ B. slide
☐ C. turn

Moving a figure over a line so that it looks like its mirror image is called a ____.

☐ A. flip
☐ B. slide
☐ C. turn

Moving a figure around a point without changing its shape or size is called a ____.

☐ A. flip
☐ B. slide
☐ C. turn

CHALLENGE!

PROBABILITY

A possible result of an experiment is called an ____.

☐ A. estimate
☐ B. addend
☐ C. outcome

Will the coin land heads up or tails up?

Having a good chance of happening means it is ____ to happen.

☐ A. unlikely
☐ B. likely
☐ C. certain

There is a good chance the spinner will land on spots.

If something will always happen, then it is ____ to happen.

☐ A. unlikely
☐ B. certain
☐ C. impossible

The spinner will always land on spots.
Shelley sells seashells by the seashore. Yesterday, the number of seashells she sold had a four in the hundreds place. Which of the following shows how many seashells Shelley sold?

A. 4,044 seashells  
B. 1,493 seashells  
C. 942 seashells  
D. 8,164 seashells

Sharks have very powerful jaws. Did you know that some sharks grow and use more than 20,000 teeth in their lifetime? That’s a lot of visits from the tooth fairy! The tooth fairy visited Shannon the Shark 19,346 times. What digit is in the thousands place in 19,346?

A. 6  
B. 3  
C. 9  
D. 1

Do you ever bounce around? In the neighborhood pogo-stick jumping contest, Deja jumped 39 inches, Teheran jumped 48 inches, Jada jumped 36 inches, and Ryan jumped 63 inches. Whoever bounced the farthest won the first place ribbon. Who came in first?

A. Deja  
B. Teheran  
C. Jada  
D. Ryan

Theo loves thrill rides! He keeps his hands up and eyes closed the whole way. Which of the following lists the roller coaster rides from tallest to shortest?

A. Threat, Sizzler, Maniac, Python  
B. Python, Sizzler, Maniac, Threat  
C. Sizzler, Threat, Python, Maniac  
D. Python, Maniac, Sizzler, Threat
**Challenge! Place Value**

How should these digits be arranged to create the greatest number?

- A. 391
- B. 913
- C. 139
- D. 931

Twinkle, twinkle, little star. How many of you can I count from afar? Darius counted 4,728 stars in the night sky. It took him all night! His brother, Derrick, counted one fewer. How many twinkling stars did Derrick count?

- A. 4,727 stars
- B. 4,729 stars
- C. 4,728 stars
- D. 3,728 stars

**Challenge! Numbers**

It’s hard to keep up with this count! A beautiful butterfly flaps its wings 35,672 times in one hour. In expanded form, that’s ____.

- A. 30,000 + 500 + 60 + 70 + 2
- B. 30,000 + 5,000 + 600 + 70 + 2
- C. 3 + 5 + 6 + 7 + 2
- D. 3,000 + 500 + 672

Now that’s a real strawberry jam! Nine thousand, three hundred four strawberries are squeezing through a doorway. In standard form, how many strawberries are there?

- A. 9,340 strawberries
- B. 9,304 strawberries
- C. 934 strawberries
- D. 9,430 strawberries
It’s a good thing he doesn’t need to swim across the East River! Manuel crosses the Brooklyn Bridge every morning to go to school. The main span of the bridge is 1,586 feet long. In word form, how many feet long is the Brooklyn Bridge?

- A. one thousand, five hundred ninety-six
- B. one five nine six
- C. one thousand, fifty-nine six
- D. fifteen thousand, ninety-six

Usually, Heath gets in trouble when he breaks something. But not this piñata! When it breaks open, nine hundred seventeen pieces of candy will come flying out. In standard form, how many pieces of candy are in the piñata?

- A. 9,017 pieces
- B. 917 pieces
- C. 971 pieces
- D. 900,017 pieces

How low can you go? The Atlantic Ocean has a point as deep as eight thousand, six hundred five meters. Not even Shelley the Scuba Diver can go that deep! What is that depth in standard form?

- A. 8,065
- B. 865
- C. 8,650
- D. 8,605

Now this is a hairy situation: Hannah has not cut her hair in 5,555 days. In word form, for how many days has Hannah’s hair grown?

- A. five hundred fifty-five and five
- B. fifty-five thousand, five
- C. fifty-five thousand, five hundred fifty-five
- D. five thousand, five hundred fifty-five
Find the missing sign.

Find the missing sign.

Find the missing sign.

Find the missing sign.
Find the missing number.

\[ \frac{1}{4} \text{ of } 12 = \]

A. 6  
B. 9  
C. 3  
D. 12

Find the missing number.

\[ \frac{1}{3} \text{ of } 9 = \]

A. 2  
B. 6  
C. 9  
D. 3

Jordan has 45 berries in all. He has 15 cherries, 16 strawberries, and some blueberries. How many blueberries does he have?

1. How many cherries and strawberries does Jordan have altogether?

A. 31 berries  
B. 16 berries  
C. 45 berries

2. Which shows how to find out how many blueberries Jordan has?

A. 45 + 31  
B. 45 - 31  
C. 45 + 15 + 16

3. How many blueberries does Jordan have?

A. 22 blueberries  
B. 8 blueberries  
C. 14 blueberries
Kelly has 9 pencils in her book bag—6 pencils are yellow, 2 are green, and 1 is blue. What is the likelihood that she will pull out a black pencil from her book bag?

1. What are the colors of the pencils in Kelly’s book bag?
   - A. red, blue, yellow
   - B. yellow and green
   - C. blue, green, and yellow

2. How many black pencils are in Kelly’s book bag?
   - A. 1 black pencil
   - B. 0 black pencils
   - C. 6 black pencils

3. What is the likelihood that she will pull out a black pencil from her book bag?
   - A. unlikely
   - B. likely
   - C. impossible

Look at the balance shown below. If Ms. Block removes one square from the balance, how many circles will she need to remove for it to stay balanced?

1. Because both sides of the balance are at the same level, you know that ____________.
   - A. 2 squares weigh more than 6 circles
   - B. 2 squares weigh less than 6 circles
   - C. 2 squares weigh the same as 6 circles

2. If Ms. Block removes one square from the balance, how many circles will she need to remove for it to stay balanced?
   - A. 3 circles
   - B. 2 circles
   - C. 1 circle