ANSWER KEY

Grade 3
at HOME
by Educational Insights

1. Place Value

- The value of a digit determined by its location in a number is called ___.
  - A. regrouping
  - B. counting
  - C. place value

- 23: The digit 2 is in the tens place. 3 ones

- 341: The digit 4 is in the hundreds place. 3 ones

- A way to write numbers using digits is called ___.
  - A. standard form
  - B. word form
  - C. expanded form

- 568: A way to write numbers by showing the value of each digit is called ___.
  - A. word form
  - B. expanded form
  - C. standard form

2. Place Value

- When he goes golfing, Mr. Putter wears two pairs of pants in case he gets a hole-in-one! Today, he saw his golf club 147 times to complete the game. What digit is in the tens place in 147?
  - A. 1
  - B. 4
  - C. 7
  - D. 14

- Peggy and Polly are best friends - they’re like two peas in a pod! Even their names begin with P! They love to eat peas, too. Together, they ate 127 peas. Yes, they really counted! Which digit is in the ones place in 127?
  - A. 7
  - B. 2
  - C. 20
  - D. 1

3. Place Value

- Candie Sweet helped to get the candy stand ready for the school festival. She filled 4 jars with candy treats. Each jar held 100 candy treats. She had 7 candy treats left over. How many candy treats did Candie have in all to sell?
  - A. 47 candy treats
  - B. 470 candy treats
  - C. 407 candy treats
  - D. 400 candy treats

- Cindy is counting the number of paper clips in her paper clip chain. Which number shows 5 hundreds, 7 tens, and 2 ones?
  - A. 725
  - B. 527
  - C. 572
  - D. 275

4. Math Vocabulary

- To join equal groups, such as 3 groups of 2, is to ___.
  - A. divide
  - B. subtract
  - C. multiply

- Numbers that are multiplied together are called ___.
  - A. addends
  - B. products
  - C. factors

- The answer to a multiplication problem is called the ___.
  - A. sum
  - B. product
  - C. difference

5. Multiplication

- Liam will earn a giant Bock Worm trophy when he reads 6 stacks of books. Each stack has 10 books. How many books does Liam need to read to earn the trophy?
  - A. 6 books
  - B. 10 books
  - C. 66 books
  - D. 60 books

- Owen is building a tower of blocks that will stretch to the moon! He plans to use 7 boxes of blocks. There are 10 blocks in each box. How many blocks will be in Owen’s tower?
  - A. seventy blocks
  - B. seventy-seven blocks
  - C. seventy-tent blocks
  - D. ten blocks

6. Multiplication

- Ms. Pink has 8 boxes of crayons. Each box has 10 crayons in it. All the crayons are Ms. Pink’s favorite color – pink! How many crayons does Ms. Pink have in all?
  - A. Skip count the crayons by 8.
  - B. Skip count the crayons by 10.
  - C. Subtract the number of crayons from the number of boxes.

- 1. What is a way to solve this problem?
  - A. 10 + 8
  - B. 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10
  - C. 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8

- 2. Which number sentence could you use to find the total number of crayons that Ms. Pink has in all?
  - A. 80 crayons
  - B. 10 crayons
  - C. 8 crayons
**Multiplication Facts**

2 x 2 =
- A. 2
- B. 4
- C. 22
- D. 8

3 x 4 =
- A. 6
- B. 9
- C. 12
- D. 18

4 x 7 =
- A. 28
- B. 11
- C. 47
- D. 21

6 x 7 =
- A. 42
- B. 13
- C. 56
- D. 56

**Math Vocabulary**

A number that names a part of a whole object or a set of objects is called a ______.
- A. fraction
- B. digit
- C. whole number

A fraction that names one out of two equal parts is called ______.
- A. one-third
- B. one-half
- C. one-fourth

A fraction that names one out of four equal parts is called ______.
- A. one-fourth
- B. one-half
- C. one-third

The part of the fraction below the fraction bar that tells how many parts the whole is divided into is called the ______.
- A. dividend
- B. numerator
- C. denominator

The part of the fraction above the fraction bar that tells how many parts are being counted is called the ______.
- A. product
- B. numerator
- C. denominator

A fraction in which the numerator is greater than or equal to the denominator is called ______.
- A. a proper fraction
- B. a whole fraction
- C. an improper fraction

**Fractions**

Chris and three friends shared equal parts of a peanut butter and lettuce sandwich. What fraction of the sandwich did Chris eat?

1. Which equation shows how many people ate a part of the sandwich?
   - A. 3 + 1 = 4
   - B. 4 + 1 = 5
   - C. 1 + 1 + 2

2. What fraction of the sandwich did Chris eat?
   - A. \( \frac{1}{4} \)
   - B. \( \frac{1}{5} \)
   - C. \( \frac{1}{2} \)

3. Which picture of the sandwich is missing the fraction of the sandwich Chris ate?
   - A. [Picture A]
   - B. [Picture B]
   - C. [Picture C]
**Elapsed Time**

1. Which clock shows the time Kimya's riding lesson started?
   - A. 15 minutes
   - B. 30 minutes
   - C. 60 minutes

2. How many minutes passed during Kimya's lesson?
   - A. 15 minutes
   - B. 30 minutes
   - C. 60 minutes

3. What time did Kimya's lesson end?
   - A. 3:35 P.M.
   - B. 4:35 P.M.
   - C. 1:00 P.M.

**Elapsed Time**

1. Which shows the best way to use skip counting to determine the answer?
   - A. Count clockwise 1 minute at a time.
   - B. Skip-count clockwise 5 minutes at a time.
   - C. Skip-count counter-clockwise 5 minutes at a time.

2. How many minutes long was Jeremy's swim class?
   - A. 15 minutes
   - B. 45 minutes
   - C. 1 hour 15 minutes

**Weight (Customary Units)**

A unit for measuring the weight of small objects, such as a slice of bread, is called an ______.
   - A. ounce
   - B. inch
   - C. estimate

A unit for measuring the weight of medium-to-large objects, such as a child, is called a ______.
   - A. pound
   - B. ton
   - C. yard

A unit for measuring the weight of very large objects, such as an airplane, is called a ______.
   - A. pound
   - B. foot
   - C. ton

**Temperature (Fahrenheit)**

Aaron measured the temperature of a bowl of gummi bear soup. Yum-Yum! The thermometer shows the temperature of the soup. In degrees Fahrenheit, what was the temperature of the soup, rounded to the nearest ten degrees?

1. What unit of measure is being used in this problem?
   - A. degrees Fahrenheit
   - B. degrees Celsius
   - C. pounds

2. To what number is 150 closest?
   - A. 150 degrees Fahrenheit
   - B. 160 degrees Fahrenheit
   - C. 70 degrees Fahrenheit
**Dot Quiz Grade 3**

**Answer Key**

**Data and Statistics**

The table below shows the number of students in each third grade class at Wolfe Elementary School. Ms. Riding’s class has 26 students. How many ☐️ should be shown for Ms. Riding’s class?

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Ms. Bailey</th>
<th>Ms. Riding</th>
<th>Ms. Holt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice of Students</td>
<td>☐️☐️☐️☐️☐️</td>
<td>☐️☐️☐️☐️☐️</td>
<td>☐️☐️☐️☐️☐️</td>
</tr>
</tbody>
</table>

1. How many students does one ☐️ represent?
   - A. 10 students
   - B. 20 students
   - C. 5 students

2. Which shows the number of students in Ms. Riding’s class?
   - A. 5 + 5
   - B. 6 + 5 + 5 + 5
   - C. 5 + 5 + 5

3. How many ☐️ should be shown for Ms. Riding’s class?
   - A. 20 ☐️
   - B. 4 ☐️
   - C. 5 ☐️

**Data and Statistics**

Jack E. Robinson collects baseball cards. He buys a few new cards each month. The graph shows how many cards Jack bought in the spring. In which month did he buy the fewest baseball cards?

1. How can you tell if something is more or less on this graph?
   - A. You cannot tell.
   - B. Compare the heights of the bars.
   - C. Check the weather for the 3 months shown.

2. Which month has the shortest bar?
   - A. March
   - B. April
   - C. May

3. During which month did Jack buy the fewest baseball cards?
   - A. March
   - B. April
   - C. May

**Data and Statistics**

Sunflower the clown gave away balloons on each day of a carnival. On Friday, Sunflower gave away 12 balloons. On Saturday, she gave away 14 balloons. And on Sunday, she gave away 6 more balloons than she gave away on Saturday. Which tally chart correctly shows the number of balloons she gave away each day?

1. How many balloons are represented by this chart?
   - A. 1 balloon
   - B. 5 balloons
   - C. 10 balloons

2. Which equation shows how many balloons Sunflower gave away on Sunday?
   - A. 12 + 14 = 26
   - B. 14 + 6 = 20
   - C. 13 + 12 = 25

3. Which tally chart correctly shows how many balloons the clown gave away?
   - A. Chart 1
   - B. Chart 2
   - C. Neither chart shows how many balloons the clown gave away.
**Comparing Whole Numbers**

1. To find the book with the fewest pages, which place value should you compare first?
   - A. the ones place
   - B. the tens place
   - C. the hundreds place

2. Which of these numbers has a digit in the hundreds place with the least value?
   - A. 175
   - B. 207
   - C. 273

3. Which book has the fewest pages?
   - A. the book about dinosaurs
   - B. the book about aliens
   - C. the book about tree stumps

4. On Monday, an airplane flew 3,536 miles to Toadtown, California. On Tuesday, it flew 2,235 miles to Candy Town, Ohio. And on Wednesday, it flew 3,502 miles to New Igloo, Alaska. On which day did the plane fly the most miles?
   - Monday: 3,536 miles
   - Tuesday: 2,235 miles
   - Wednesday: 3,502 miles

5. Which two days have the same number in the thousands place?
   - A. Monday and Tuesday
   - B. Monday and Wednesday
   - C. Tuesday and Wednesday

6. What’s Wanda the Witch’s favorite subject in school? Spelling, of course! She could spell 5,671 words in second grade and knew 9,713 by the end of third grade. Which of the following is true?
   - A. 9,713 > 5,671
   - B. 5,671 < 9,713
   - C. 5,671 = 9,713
   - D. 5,671 > 9,713

**Multiplication**

Craig brought chocolate chip cookies to school to share for his birthday. He gave 3 cookies to each of his 9 classmates. He wrote this problem to show how many cookies he gave out: 3 × 9 = 27

What are the factors in Craig’s problem?
- A. 3 only
- B. 9 and 27
- C. 2 and 7
- D. 3 and 9

Macon: Dee is baking triple chocolate cookies for the school bake sale. He has 4 bowls. He cracked 3 eggs in each bowl. How many eggs did Macon crack altogether?

1. Which operation can you use to solve this problem?
   - A. subtraction
   - B. division
   - C. multiplication

2. Which does NOT show a way to solve this problem?
   - A. 3 + 3 + 3 + 3
   - B. 4 × 3
   - C. 4 × 3

3. How many eggs did Macon crack altogether?
   - A. 7 eggs
   - B. 12 eggs
   - C. 8 eggs

Sally is stuck in a sticky situation. Sally has 8 packs of gum. There are 5 pieces of gum in each pack. How many pieces of gum does Sally have in all?

1. Which number sentence shows a way to solve the problem?
   - A. 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5
   - B. 5 + 3
   - B. 5 + 5 + 3

2. To solve this problem, you could skip count by _____.
   - A. 5s
   - B. 2s
   - C. 10s

3. How many pieces of gum does Sally have in all?
   - A. 40 pieces of gum
   - B. 8 pieces of gum
   - C. 13 pieces of gum
DIVISION FACTS

5 \( \div \) 40

A. 8  B. 6  C. 35  D. 7

A. 12  B. 4  C. 8  D. 3

A. 48  B. 32  C. 5  D. 8

7 \( \div \) 63

A. 7  B. 9  C. 6  D. 70

A. 4  B. 15  C. 9  D. 36

A. 8  B. 4  C. 45  D. 7

DIVISION FACTS

2 \( \div \) 6

FRACTIONS

2 \( \div \) 4

A.  A.  B.  B.  C.  C.  D.  D.

3 \( \div \) 4

A.  A.  B.  B.  C.  C.  D.  D.

3 \( \div \) 5

A.  A.  B.  B.  C.  C.  D.  D.

FRACTIONS

3 \( \div \) 12

A.  A.  B.  B.  C.  C.  D.  D.

COMPARING FRACTIONS

Which fraction is greater?

\[ \frac{1}{3} \quad A. \quad \frac{1}{4} \quad B. \]

Which fraction is greater?

\[ \frac{1}{6} \quad A. \quad \frac{1}{3} \quad B. \]

Which fraction is greater?

\[ \frac{1}{2} \quad A. \quad \frac{1}{3} \quad B. \quad \frac{1}{4} \quad B. \]
ANSWER KEY
Grade 3 at HOME by Educational Insights

WEIGHT/MASS (METRIC UNITS) 43
Which unit of measure would be best to measure the weight of a rocket?
- A. gram
- B. kilogram
- C. metric ton

Which unit of measure would be best to measure the weight of a refrigerator?
- A. gram
- B. kilogram
- C. centimeter

Which unit of measure would be best to measure the weight of a letter?
- A. gram
- B. kilogram
- C. metric ton

TEMPERATURE (CELSIUS) 44
Mika’s dad told him that if the temperature is 27 degrees Celsius or higher, they will go to Splash World water park. The thermometer shows the temperature outside. Will they go to the water park?

1. There are 4 small lines between 20° and 30° Celsius. What do these lines represent?
- A. 21°, 22°, 23°, 24°
- B. 22°, 24°, 26°, 28°
- C. 21°, 23°, 25°, 27°

2. The temperature is shown between 24° and 26° Celsius. What is the exact temperature on the thermometer?
- A. 27 degrees Celsius
- B. 25 degrees Fahrenheit
- C. 25 degrees Celsius

3. Is it hot enough to go to the water park?
- A. Yes, they will go to the water park because the temperature is greater than 27°C.
- B. It’s impossible to know from the information given.
- C. No, they won’t go to the water park because the temperature is not at least 27°C.

AREA 45
If you are asked to find the area of something, you need to find
- A. the length of two lines
- B. the number of square units that cover a flat surface
- C. the distance around the outside of a figure

Rohans loves his new puppy so much that he bought him a blanket to sleep on. The blanket is 4 feet long and 3 feet wide. What is the area of the blanket?

- A. 12 square feet
- B. 14 square feet
- C. 1 square foot
- D. 12 square feet

AREA 46
Sophie has a math book with a cover that is 6 inches long and 4 inches wide. What is the area of the cover of her math book?

1. How can you find the area of a surface?
- A. length x length + width x width
- B. length x width
- C. length x width

2. Which number sentence could help you find the area of the cover of the math book?
- A. 6 x 6 + 4 x 4
- B. 6 x 4
- C. 6 + 4

3. What is the area of the cover of the math book?
- A. 6 square inches
- B. 10 square inches
- C. 24 square inches

DATA AND STATISTICS 47
Veronica’s family went on a trip to search for Bigfoot. They drove 23 miles on Friday, rested on Saturday, and drove 36 miles on Sunday. They never did find Bigfoot – but they did see a purple dinosaur! How many miles did Veronica’s family drive in all?

Miles Driven to Search for Bigfoot

1. On which day did Veronica’s family NOT drive?
- A. Friday
- B. Saturday
- C. Sunday

2. Which operation should you use to solve the problem?
- A. subtraction
- B. multiplication
- C. addition

3. How many miles did Veronica’s family drive in all?
- A. 59 miles
- B. 36 miles
- C. 23 miles
Ms. Kitty asked all of her students which pet they like best. The graph shows the pets her students like best. How many more students like cats than fish?

1. What are you asked to compare?
   - A. the height of the bar for students
   - B. the height of the bar for fish and the bar for pets
   - C. the height of the bar for cats and the bar for fish

2. Which number sentence shows a way to solve the problem?
   - A. 5 - 3
   - B. 7 - 3
   - C. 3 + 5

3. How many more students like cats than fish?
   - A. 4 students
   - B. 3 students
   - C. 10 students

Dana loves to splash in mud puddles when it rains. Dana was very happy this week – it rained every day! Dana made a chart of the number of centimeters that it rained each day.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Which day had the fewest centimeters of rain?
   - A. Mon.
   - B. Wed.
   - C. Thurs.

Which bar graph correctly shows the data from the chart?
   - A.
   - B.