5th Grade Math

Week of March 29 - April 1, 2021

Name _____

* Please do not complete until advised by teacher*

Find each quotient. Draw a picture to help.

1. $\frac{1}{3} \div 6$

2. $\frac{1}{2} \div 4$

3. Caitlin, Christine, and Amanda equally shared ½ of a pie. What fraction of the whole pie did each friend receive?

A. $\frac{1}{6}$

B. $\frac{1}{5}$

C. $\frac{2}{3}$

D. $\frac{3}{2}$

Name _____

Practice Video Tools Games

Additional Practice 9-5

Divide Unit Fractions by Non-Zero Whole Numbers

Another Look!

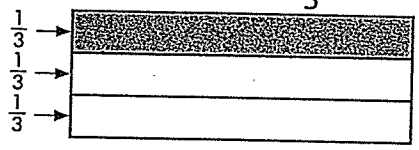
Sal has $\frac{1}{3}$ of a sheet of poster board. Four friends are sharing the $\frac{1}{3}$ sheet equally. What fraction of the original sheet does each friend get?

Step 1

Use a drawing.

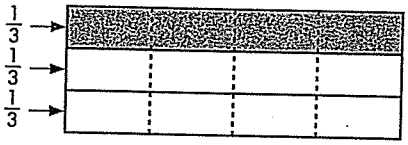
Divide 1 whole sheet into 3 equal parts.

Shade to show Sal's $\frac{1}{3}$.



Step 2

Next, divide each third into 4 equal parts.



Step 3

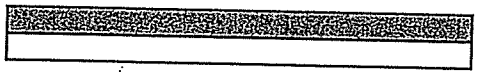
Count the total number of parts. The total is the denominator.

$\frac{1}{12}$ ← each friend's part
$\frac{1}{12}$ ← total number of parts

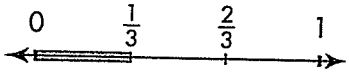
So, each friend gets $\frac{1}{12}$ of the original sheet.

Leveled Practice In **1–11**, find each quotient. Draw a picture or use a number line to help.

1. $\frac{1}{2} \div 4$



2. $\frac{1}{3} \div 2$



3. $\frac{1}{3} \div 5$

4. $\frac{1}{5} \div 3$

5. $\frac{1}{2} \div 5$

6. $\frac{1}{8} \div 2$

7. $\frac{1}{5} \div 4$

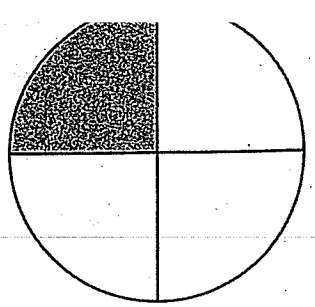
8. $\frac{1}{5} \div 2$

9. $\frac{1}{6} \div 4$

10. $\frac{1}{4} \div 3$

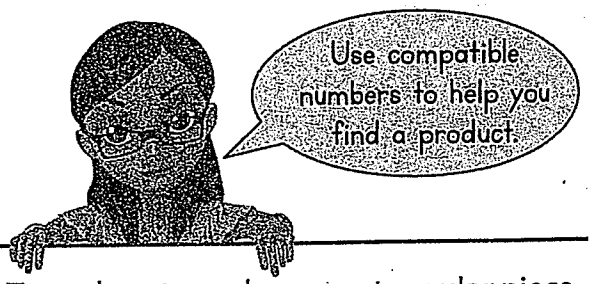
11. $\frac{1}{8} \div 2$

12. Marge and Kimo equally shared one fourth of a pie that was left over. What fraction of the original pie did each friend get? Use the picture to help you find the solution.



13. **Higher Order Thinking** Eve and Gerard each have $\frac{1}{2}$ of a poster to paint. Eve divided her half into 6 equal sections. She painted one section blue. Gerard divided his half into 5 equal sections. He painted one section blue. Whose blue section is larger? Explain.

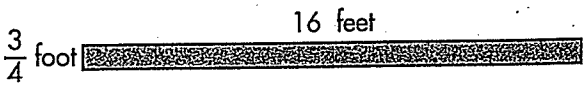
14. **Number Sense** What are two decimals whose product is close to 10?



15. **Use Structure** Without multiplying, order the following products from least to greatest.

$2 \times \frac{3}{5}$ $\frac{1}{4} \times \frac{3}{5}$ $1\frac{2}{5} \times \frac{3}{5}$ $\frac{6}{6} \times \frac{3}{5}$

16. Tom plans to replace a rectangular piece of drywall. Find the area of the piece of drywall that Tom needs to replace.



Assessment Practice

17. Mrs. Sims cut a melon into fifths. She gave 1 piece to each of her four children. She used equal amounts of the leftover melon to make three fruit cups. What fraction of the original melon did she use to make each fruit cup?

Ⓐ $\frac{1}{4}$

Ⓑ $\frac{1}{12}$

Ⓒ $\frac{1}{15}$

Ⓓ $\frac{1}{20}$

18. Steven has $\frac{1}{3}$ of a package of biscuit mix left. He will use equal parts of the leftover mix to make three batches of biscuits. What fraction of the original package will he use for each batch?

Ⓐ $\frac{1}{9}$

Ⓑ $\frac{1}{6}$

Ⓒ $\frac{1}{2}$

Ⓓ $\frac{2}{3}$

Find each quotient. Use a diagram or number line to help.

1. $\frac{1}{8} \div 2$

2. $\frac{1}{2} \div 4$

3. During a hike, 3 friends share $\frac{1}{2}$ pound of trail mix. What amount of trail mix will each friend receive?

a. $\frac{1}{6}$

b. $\frac{3}{2}$

c. $3\frac{1}{2}$

d. 6

Name _____

Practice Video Tools Games

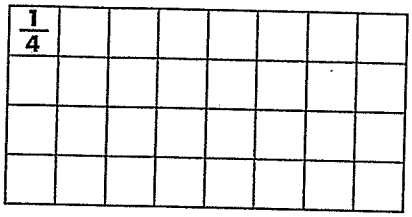
Additional Practice 9-6
Divide Whole Numbers and Unit Fractions

Another Look!

Find $8 \div \frac{1}{4}$.

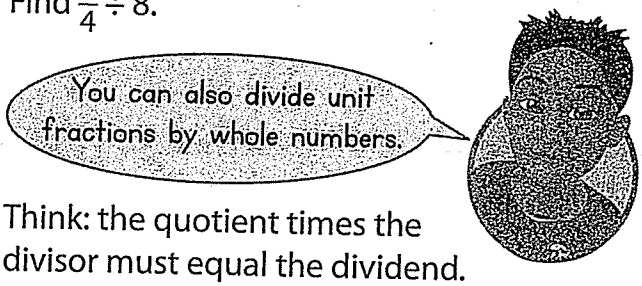
First, draw a rectangle and divide it into 8 equal parts to represent 8 wholes.

Then use another color to divide each of the 8 parts into fourths and count the total number of fraction parts.



There are 32 small squares, so you know that $8 \div \frac{1}{4} = 32$.

Find $\frac{1}{4} \div 8$.



Think: the quotient times the divisor must equal the dividend.

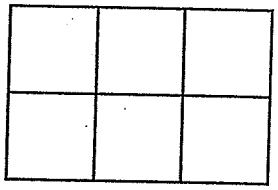
What times 8 equals $\frac{1}{4}$?

$\frac{1}{32} \times 8 = \frac{1}{4}$

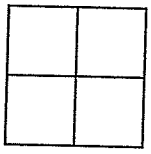
So, $\frac{1}{4} \div 8 = \frac{1}{32}$.

In 1–12, find each quotient. Use a number line or model to help.

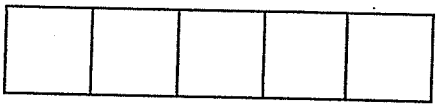
1. $6 \div \frac{1}{2}$



2. $4 \div \frac{1}{4}$



3. $5 \div \frac{1}{3}$



4. $\frac{1}{2} \div 6$

5. $\frac{1}{5} \div 2$

6. $\frac{1}{8} \div 3$

7. $\frac{1}{7} \div 8$

8. $5 \div \frac{1}{5}$

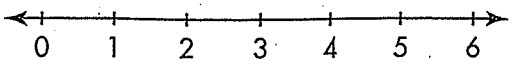
9. $\frac{1}{3} \div 9$

10. $\frac{1}{4} \div 8$

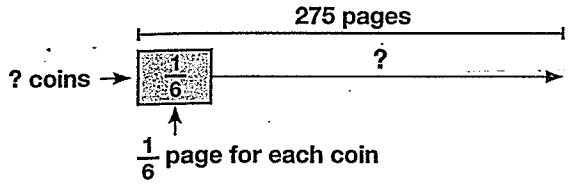
11. $6 \div \frac{1}{7}$

12. $\frac{1}{6} \div 5$

13. Cynthia has a piece of wood that is 6 feet long. She cuts it into $\frac{1}{2}$-foot pieces. How many pieces does she have? Use the number line to help you solve the problem.

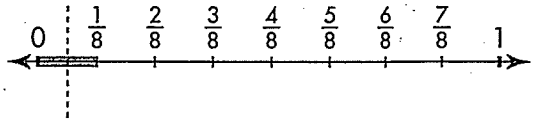


14. Gregg has a coin collection album with 275 pages. Each coin is displayed on $\frac{1}{6}$ of a page. How many coins will fit in the album?



15. **enVision®** STEM Suppose a wind turbine requires $\frac{1}{6}$ square mile of land. How many turbines can be built on 8 square miles of land?

16. **Reasoning** Meredith modeled a division problem on the number line. What division problem did she model? Find the quotient.



17. **Higher Order Thinking** Millie has 5 yards of blue fabric and 7 yards of pink fabric. How many quilt squares can she make with the fabric she has if both colors are needed to make one square? Explain your reasoning.

DATA

Amount of Fabric Needed for One Quilt Square

Fabric Color	Amount Needed
Blue	$\frac{1}{4}$ yard
Pink	$\frac{1}{3}$ yard

Assessment Practice

18. Cindy says that $\frac{1}{4} \div 12 = 3$. Is she correct? If not, justify your reasoning and give the correct quotient.

Exit Ticket Lesson 9-7

1. Debbie cut a cord into sixths. She used 5 of the pieces to make necklaces. She used equal amounts of the remaining cord to make four bracelets. What fraction of the original cord did Debbie use to make bracelets?

Name _____ Practice Video Tools Games

Additional Practice 9-7
Solve Problems Using Division

Another Look!

Nell participated in a 3-day charity walk. She raised \$0.50 for each $\frac{1}{3}$ mile that she walked. The first day, Nell walked 12 miles. The second day, she walked 8 miles. The third day, she walked 16 miles. How much money did Nell raise?

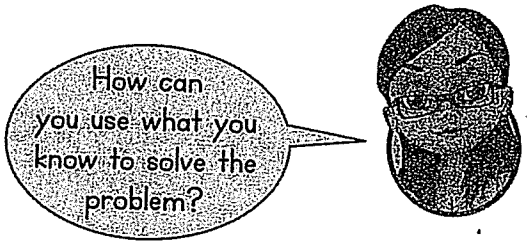
What do you know?

Nell walked 12 miles, 8 miles, and 16 miles.

She raised \$0.50 for each $\frac{1}{3}$ mile she walked.

What do you need to find?

How much money Nell raised



Write an equation to answer each question.

a What is the total number of miles Nell walked?

Nell walked $12 + 8 + 16 = 36$, or 36 miles.

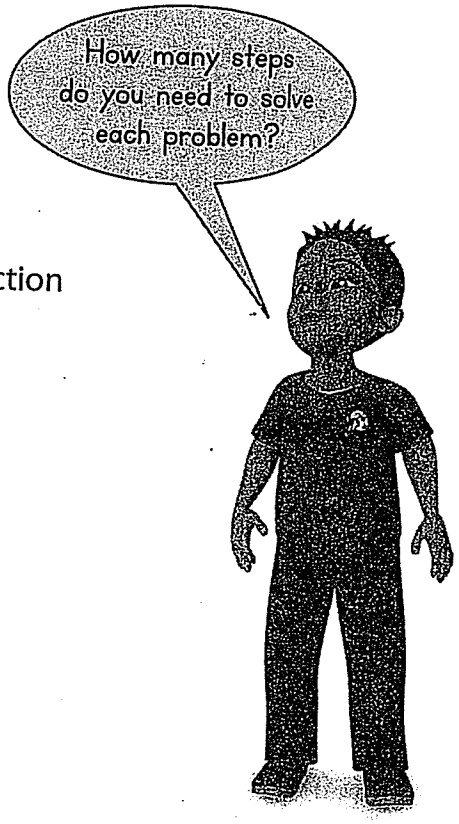
b How many $\frac{1}{3}$ miles did Nell walk?

Nell walked $36 \div \frac{1}{3} = 108$, or 108 one-third miles.

c How much money did Nell raise?

Nell raised $108 \times \$0.50 = \$54$.

Write the equations needed to solve each problem. Then solve.



1. Anna plants peas in $\frac{3}{8}$ of her garden and herbs in $\frac{1}{8}$ of it. She divides the rest of the garden into 6 sections. What fraction of the original garden is each section?

Equations: _____

Answer: _____

2. Ryan has 4 cups of grape juice, and Kelsey has 7 cups of lemonade. They want to combine what they have to make punch. How many $\frac{1}{2}$-cup servings of punch can they make?

Equations: _____

Answer: _____

3. Benjamin is making bow ties. How many $\frac{1}{2}$-yard-long bow ties can he make if he has 18 feet of fabric?

4. Cole's rectangular garden has an area of 54 square feet. What could be the dimensions of the garden?

5. One batch of fruit punch contains $\frac{1}{4}$ quart grape juice and $\frac{1}{2}$ quart apple juice. Colby makes 9 batches of fruit punch. How much grape juice did he use for 9 batches?

6. Higher Order Thinking Ms. James has a 6-square-foot bulletin board and a 12-square-foot bulletin board. She wants to cover both boards with index cards without gaps or overlaps. Each index card has an area of $\frac{1}{4}$ square foot. How many index cards does she need?

7. Number Sense Craig has 36 ounces of flour left in one bag and 64 ounces of flour in another bag. Use the Baking Flour Equivalents table to find how many cups of flour Craig has in all.

DATA

Baking Flour Equivalents

Number of Ounces	Number of Cups
16	3.6
10	2.3
8	1.8

8. Doris uses 8 square pieces of fabric to make one scarf. Each side of a square piece of fabric is $\frac{1}{4}$ foot in length. Doris can buy large pieces of fabric that are $\frac{1}{4}$ foot long and 2 feet wide. How many large pieces of fabric should she buy to make 7 scarves? Show your work.

Assessment Practice

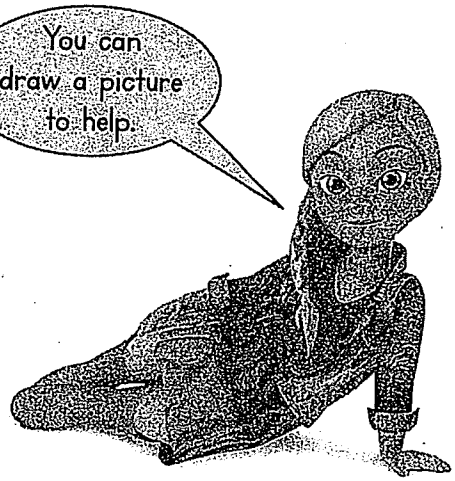
9. Debbie cut a cord into sixths. She used five of the pieces to make necklaces. She used equal lengths of the remaining cord for each of four bracelets. What fraction of the original cord did Debbie use for each bracelet?

Ⓐ $\frac{1}{6}$

Ⓑ $\frac{1}{12}$

Ⓒ $\frac{1}{16}$

Ⓓ $\frac{1}{24}$



Standards Review

Lesson 6

Domain: Number and Operations in Base Ten
Cluster: Understand the place value system.
Standards: Primary 5.NBT.1; Secondary 5.NBT.2

Background Information:

Maliha made the list below of things she wants to buy before the start of the new school year.

Item	Price
Spiral Notebook: 6-pack	$7.59
Notebook Filler Paper: 500 Sheets	$7.79
Ballpoint Pens: 12-pack	$7.49
Mechanical Pencils: 12-pack	$4.99
Solar Calculator	$14.99
Laptop Computer	$199.99
Jeans	$29.58
Blouse	$17.61
Shoes	$38.72
Backpack	$25.98
Water Bottle	$12.82

Modeled Instruction

1 The prices of the jeans and backpack include the same digits but some of them are in different places within the numbers. Compare the place value of the digits 5 and 9 in both numbers.

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to compare the place value of the digits 5 and 9 in both numbers for the prices of jeans and a backpack.

STEP 2 **FIND:** *What do you need to solve the problem?*

- The jeans cost $29.58.
- The backpack costs $25.98.

STEP 3 **CHOOSE:** *How will you solve the problem?*

You can solve this problem by finding the place value of the 5 and 9 in each number. Then compare the values.

STEP 4 **SOLVE:** *Solve the problem.*

Value of 9:
- Price of jeans: 9
- Price of backpack: 0.9

Value of 5:
- Price of jeans: 0.5
- Price of backpack: 5

The 5 in the price of the jeans is $\frac{1}{10}$ the value of the 5 in the price of the backpack.

STEP 5 **CHECK and JUSTIFY:** *Check and justify your answer.*

Use a place-value chart to compare the values in the ones place for each item and the tenths place for each item.

Independent Practice

2 How many dimes would it take to represent the value of the 9 in the price of the jeans and in the price of the backpack? Explain your answer.

3 How many dimes would it take to represent the value of the 5 in the price of the jeans and in the price of the backpack? Explain your answer.

4 Write down the price of the laptop computer.

Part A Write down the number of pennies it would take to represent the 9 in the hundredths place, in the tenths place, in the ones place, and in the tens place. What does this tell you about the relationship between the digits in the number as you move to the right or left?

Part B How many times greater is the 9 in the tens place compared to the 9 in the hundredths place? If possible, write your answer in exponential form. Explain how you got your answer.

5 There are two 7s in the price of the notebook filler paper. Jessica says the 7 on the right is $\frac{1}{10}$ the value of the 7 on the left. Reginald says the 7 on the right is 10 times the value of the 7 on the left. Who is correct? Explain your answer.

6 There are two 2s in the price of the water bottle. Caroline says the 2 on the left is 10 times the value of the 2 on the right. Chantelle says the 2 on the left is 100 times the value of the 2 on the right. Who is correct? Explain your answer.

7 A sprinter ran a race in 11.31 seconds. How many times greater is the 1 in the tens place than the 1 in the hundredths place?

A 10 times greater

B 100 times greater

C 1,000 times greater

D 10,000 times greater

8 A hard-cover book costs $27.97. What is the relationship between the two 7s in the price of the book?

A The 7 in the hundredths place is $\frac{1}{100}$ the value of the 7 in the ones place.

B The 7 in the ones place is $\frac{1}{100}$ the value of the 7 in the ones place.

C The 7 in the hundredths place is 100 times the value of the 7 in the ones place.

D The 7 in the ones place is 100 times the value of the 7 in the hundredths place.

9 Margo kept track of the number of miles she drove on her trip. She drove a total of 2,487 miles. Which number of miles has a digit in the tens place that is $\frac{1}{10}$ the value of the digit in the hundreds place in the number of miles Margo drove?

A 2,945 miles

B 4,287 miles

C 6,954 miles

D 7,428 miles

Lesson 7

Domain: Number and Operations in Base Ten
Cluster: Understand the place value system.
Standards: Primary 5.NBT.2; Secondary 5.NBT.1

Background Information:

Since sizes of objects and distances in space are so great, powers of 10 are often used to represent these measures.

Object	Approximate Diameter (in miles)	Approximate Distance from the Sun (in miles)
Mercury	3.0×10^3	36,000,000
Venus	7.5×10^3	67,000,000
Earth	8.0×10^3	93,000,000
Mars	4.2×10^3	140,000,000
Jupiter	8.9×10^4	480,000,000
Saturn	7.5×10^4	890,000,000
Uranus	3.2×10^4	1,800,000,000
Neptune	3.1×10^4	2,800,000,000
Sun	8.6×10^5	0

Modeled Instruction

1 In the table, the approximate diameters of the Sun, Mars, and Saturn are listed using different powers of 10.

Part A Write the approximate diameter of the Sun, Mars, and Saturn in standard form. Then, order the numbers from least to greatest.

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to write the approximate diameter of the Sun, Mars, and Saturn in standard form, and order the numbers from least to greatest.

STEP 2 **FIND:** *What do you need to solve the problem?*

- The diameter of the sun is about 8.6×10^5 miles.
- The diameter of Mars is about 4.2×10^3 miles.
- The diameter of Saturn is about 7.5×10^4 miles.

STEP 3 **CHOOSE:** *How will you solve the problem?*

First, write each number in standard form by multiplying. The exponent of 10 tells you how many places to move the decimal.

Next, use place value to order the numbers from least to greatest.

STEP 4 SOLVE: *Solve the problem.*

Sun: $8.6 \times 10^5 = 860{,}000$ miles

Mars: $4.2 \times 10^3 = 4{,}200$ miles

Saturn: $7.5 \times 10^4 = 75{,}000$ miles

Ordered least to greatest: 4,200 miles, 75,000 miles, 860,000 miles

Move the decimal digits to the left the same number of places as the exponent because it represents the number of times the decimal is multiplied by 10.

STEP 5 CHECK and JUSTIFY: *Check and justify your answer.*

Check your answer by working backwards. Convert your answer written in standard form back to forms with a power to 10.

$$860{,}000 = 8.6 \times 10^5$$

$$4{,}200 = 4.2 \times 10^3$$

$$75{,}000 = 7.5 \times 10^4$$

Part B Could you have ordered the diameters from least to greatest by ordering the exponents from least to greatest? Explain your answer.

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to determine whether you could have ordered the diameters from least to greatest by ordering the exponents from least to greatest, and to explain your answer.

STEP 2 **FIND:** *What do you need to solve the problem?*

You need the approximate diameters of the sun, Mars, and Saturn in both forms.

- Sun: 8.6×10^5, or 860,000 miles
- Mars: 4.2×10^3 or 4,200 miles
- Saturn: 7.2×10^4 or 75,000 miles

STEP 3 **CHOOSE:** *How will you solve the problem?*

You can solve this problem by writing the diameter in standard scientific notation form. Then, compare the diameters.

STEP 4 **SOLVE:** *Solve the problem.*

Sun: $8.6 \times 10^5 = 860{,}000$ miles (largest)
Mars: $4.2 \times 10^3 = 4{,}200$ miles (smallest)
Saturn: $7.5 \times 10^4 = 75{,}000$ miles

Yes, you can order the numbers from least to greatest using the exponents because the decimals have digits in the same place values. The diameter with the greatest power of 10 will have the greatest value.

STEP 5 **CHECK and JUSTIFY:** *Check and justify your answer.*

Check your answer by comparing the diameters in a table.

Independent Practice

2 Write Earth's, Jupiter's, and Neptune's distances from the Sun as a product of a power of 10 and a decimal with digits in the ones and tenths places. Did you have to count the zeros in each number? Explain how this helped you.

3 In 2020, the *Voyager 1* spacecraft is expected to be about 10^2 as far from the Sun as the Earth, plus another 3.1×10^9 miles. About how far will *Voyager 1* be from the Sun in 2020? Write your answer in standard form.

4 Barnard's star is about 36×10^{12} miles from the Sun.

Part A Write the distance of Mercury from the Sun as the product of a power of ten and a two-digit whole number. Did counting the number of zeros help you get your answer? Explain how this helped you.

Part B About how many times greater is the distance of Barnard's star from the Sun than Mercury's distance from the Sun? Write your answer as a power of 10.

5 About how many times greater is the Sun's diameter than Mars' diameter?

6 A tennis can contains three balls. Which expressions represent the number of balls contained in 20 tennis cans, 200 tennis cans, and 2,000 tennis cans?

A $3 \times 2{,}220$

B $3 \times 20;\ 3 \times \frac{1}{20};\ 3 \times \frac{1}{200}$

C $3 \times 20;\ 3 \times 200;\ 3 \times 2{,}000$

D $3 \times 20;\ 3 \times 220;\ 3 \times 2{,}240$

7 A wooden board is 0.8 feet long. Which length is equal to the length of this board?

A (0.008×10) feet

B $(8 \div 100)$ feet

C $(80 \div 10)$ feet

D (0.008×100) feet

8 Data recorded in a science experiment includes the value 2.4×10^5. Which number is equal to this value?

A 2,450

B 24,000

C 240,000

D 245,000

Lesson 8

Domain: Number and Operations in Base Ten
Cluster: Understand the place value system.
Standards: Primary 5.NBT.3a, 5.NBT.3b

Background Information:

Manny is making improvements to his backyard. He plans to build many things, such as a fence and a tree house. He bought 6 different sizes of scrap wood planks. Since the planks were used to make specialized furniture, they had been measured to the nearest thousandth of a meter. The chart below shows the different sizes Manny bought.

Plank	Length (in meters)	Width (in meters)
A	one and eight hundred twenty-nine thousandths	seventy-six thousandths
B	1.219	0.229
C	nine hundred fourteen thousandths	three hundred eighty-one thousandths
D	$2 + \frac{1}{10} + \frac{3}{100} + \frac{4}{1{,}000}$	$\frac{1}{10} + \frac{1}{1{,}000}$
E	2.438	0.152
F	$1 + \frac{5}{10} + \frac{2}{100} + \frac{4}{1{,}000}$	$\frac{3}{10} + \frac{1}{100} + \frac{5}{1{,}000}$

Modeled Instruction

Ex. 1 Manny used the 4th and 6th longest planks to build the deck. Which planks did he use? Write their lengths in standard form.

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to find the 4th and 6th largest planks and to write these lengths in standard form.

STEP 2 **FIND:** *What do you need to solve the problem?*

You need the lengths of the planks in the chart.

STEP 3 **CHOOSE:** *How will you solve the problem?*

You can solve this problem by converting the length of each plank in the chart to standard form. Then write the lengths in order from least to greatest to find the 4th and 6th longest planks.

STEP 4 **SOLVE:** *Solve the problem.*

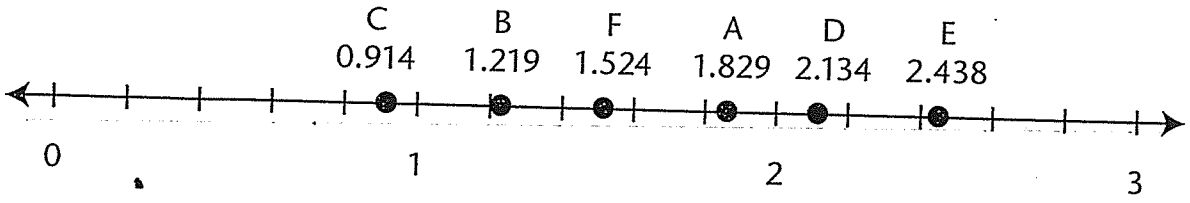
Plank A measures 1.829 meters
Plank B measures 1.219 meters
Plank C measures 0.914 meters
Plank D measures 2.134 meters
Plank E measures 2.438 meters
Plank F measures 1.524 meters

Plank C < Plank B < Plank F < Plank A < Plank D < Plank E

The 4th longest plank is Plank A, which is 1.829 meters. The 6th longest plank is Plank E, which is 2.438 meters.

STEP 5 **CHECK and JUSTIFY:** *Check and justify your answer.*

Check your answer by graphing the length of each plank on a number line. The planks that are the 4th and 6th farthest away from zero are the 4th and 6th longest planks.



Independent Practice

2 For a border around the garden, Manny used planks with the 2nd, 4th, and 5th greatest widths. Which planks did he use? Write these widths in word form in order from greatest to least.

3 For the tree house, Manny used planks with the 3rd, 4th, and 5th greatest lengths. Which planks did he use? Write these lengths in expanded form in order from greatest to least.

4 Flower boxes were built using planks with the 5th and 6th greatest widths. Which planks were used? Write these lengths in standard form in order from least to greatest.

5. While working, Manny asked his daughter to get him the first and second longest planks. Which planks should she get? Write these lengths in word form in order from least to greatest.

6. Before he started working on the gate, Manny ordered the planks by width from greatest to least. Write in expanded form the widths of the planks from greatest to least.

7. Before he started working on the fence, Manny ordered the planks by length from least to greatest. Write in standard form the lengths of the planks from least to greatest.

8 The cost of a television was $295.63. What is this cost written in expanded form?

A $2 \times 10 + 9 \times 1 + 5 \times \frac{1}{10} + 6 \times \frac{1}{100} + 3 \times \frac{1}{1{,}000}$

B $2 \times 100 + 9 \times 10 + 5 \times \frac{1}{10} + 6 \times \frac{1}{10} + 3 \times \frac{1}{100}$

C $2 \times 100 + 9 \times 10 + 5 \times 1 + 6 \times \frac{1}{10} + 3 \times \frac{1}{100}$

D $2 \times 10 + 9 \times 100 + 5 \times 1 + 6 \times \frac{1}{10} + 3 \times \frac{1}{100}$

9 A timer can record times to thousandths of a second. Which time is less than 19.174 seconds?

A 19.196 seconds

B 19.263 seconds

C 19.303 seconds

D 19.085 seconds

10 Pablo is comparing two results in his data for the amount of snowfall last month. Which sign should be placed in the box to make the relationship true?

$6 \times 10 + 8 \times \frac{1}{100}$ inches $\square$ 60.008 inches

A $<$

B $>$

C $\leq$

D $\geq$

Lesson 9

Domain: Number and Operations in Base Ten
Cluster: Understand the place value system.
Standards: Primary 5.NBT.4; Secondary 5.NBT.6, 5.NBT.7, 5.NBT.3b

Background Information:

A local charity is holding a fundraiser. All of the money raised will be donated to the charity.

Modeled Instruction

Mr. Westerskov makes custom electric guitars. He donates one to be sold at the fundraiser. He includes 3 custom picks with the guitar. Mr. Westerskov describes all of his picks by their thickness using the table below. He rounds the thickness to the nearest thousandth.

Description	Thickness (in inches)
Extra Light	≤ 0.017
Light	0.018 to 0.027
Medium	0.028 to 0.033
Heavy	0.034 to 0.047
Extra Heavy	≥ 0.048

Part A What is the description of the pick that came from a factory with a thickness measurement of 0.0195 inch?

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to give the description of the guitar pick with a thickness of 0.0195 inch.

STEP 2 **FIND:** *What do you need to solve the problem?*

You need the table on page 69, which shows the range of thickness for each type of pick.

STEP 3 **CHOOSE:** *How will you solve the problem?*

First, rewrite the numbers in the table so that they have the same number of decimal places as 0.0195. Then use place value to compare 0.0195 to each range. This will help you find the range into which this number falls.

STEP 4 **SOLVE:** *Solve the problem.*

Extra Light → 0.0000 – 0.0170
Light → 0.0180 – 0.0270
Medium → 0.0280 – 0.0330
Heavy → 0.0340 – 0.0470
Extra Heavy → 0.0480

0.0195 is between 0.0180 and 0.0270, so this is a Light pick.

STEP 5 **CHECK and JUSTIFY:** *Check and justify your answer.*

Check your answer by rounding the thickness of the pick to the nearest thousandth.

Part B What is the description of the pick that came from a factory with a thickness measurement of 0.0474 inch?

Solution:

You can use the **5-Step Method** to solve this problem:

STEP 1 **IDENTIFY:** *What are you being asked to find?*

You are being asked to give the description of a guitar pick with a thickness of 0.0474 inch.

STEP 2 **FIND:** *What do you need to solve the problem?*

You need the table on page 69, which shows the range of thickness for each type of pick.

STEP 3 **CHOOSE:** *How will you solve the problem?*

First, round 0.0474 to the nearest thousandth.

Then look at the values in the table to determine which range this number falls into.

STEP 4 **SOLVE:** *Solve the problem.*

A pick that is 0.0474 inch rounds to 0.047 inch. This falls in the range for a heavy pick.

STEP 5 **CHECK and JUSTIFY:** *Check and justify your answer.*

Check your answer by writing the range for a heavy pick in the ten-thousandths.

Heavy: 0.0340 to 0.0470

0.0474 rounds to a number in this range.

Independent Practice

2 The thickness of the guitar strings Mr. Westerskov uses are measured to the nearest thousandth of an inch. For the donated guitar, he wanted to use a string that measures between 0.009 inches and 0.012 inches. He had strings available that measured 0.0083 inches, 0.0112 inches, and 0.0126 inches. If he rounded these to the nearest hundredth, which string did he use?

3 Below is a list of some donated items.

Item	Number Available	Price
Dinner Package	4	$178.00 each
Electric Guitar (Hand-Made)	1	$599.99
Football (Autographed)	16	$39.89 each
Hotel Stay (Two Nights)	4	$125.75 each
Television	2	$450.00 each
Theme Park Tickets	1 book of tickets	$200.00

Part A Six people want to share the cost of the theme park tickets equally. Renee divides the price by 6 and rounds the result to the nearest hundredth. If each of the six people pays this amount, will there be enough to buy the tickets? Explain why or why not. Give a suggestion for how the 6 people could share the cost.

Part B Mrs. Stanton buys 12 footballs. She writes a check for an amount rounded to the nearest tenth. How much more does Mrs. Stanton pay than the total cost of the footballs?

Part C Seven people split the cost of 1 dinner package. Each of the 7 people paid the same amount. If each person's cost was rounded to the nearest hundredth, how much more was paid than the purchase price?

4 Four friends want to share the cost of a pass to a beach park. The pass costs $15.78. About how much will each friend pay? Round your answer to the nearest cent.

A $3.45

B $3.46

C $3.94

D $3.95

5 There were 4,863 people at a music concert. The music concert auditorium is divided into different sections of seating. Each section can hold 55 people. How many sections are needed to hold all 4,863 people?

A 87 sections

B 88 sections

C 89 sections

D 90 sections

6 Aaron wants to find the average amount of time it takes him to run 1 mile. He recorded the time it took him to run 1 mile the last five days.

Day	Time (minutes)
1	7.45
2	7.98
3	7.01
4	8.16
5	7.56

Aaron will find the average amount of time by finding the sum of the times and then dividing by the number of times he recorded in the chart. What was the average amount of time it took him to run 1 mile rounded to the nearest hundredth of a minute?

A 7.32 minutes

B 7.56 minutes

C 7.63 minutes

D 7.98 minutes