

1. Why are the expressions 0 and $0 \cdot 5$ equivalent?

The expressions are equivalent because of the (1) _____

- (1) Identity Property of Addition.
 Zero Property of Multiplication.
 Identity Property of Multiplication.

2. **Think About the Process** Which properties help you evaluate the expression $(6 \cdot 0) + (2 \cdot 1)$? Use these properties to evaluate the expression.

Which property helps you evaluate the expression $(6 \cdot 0)$?

- The Identity Property of Addition
 The Zero Property of Multiplication
 The Identity Property of Multiplication

Which property helps you evaluate the expression $(2 \cdot 1)$?

- The Identity Property of Addition
 The Zero Property of Multiplication
 The Identity Property of Multiplication

Which property helps you evaluate the expression after you evaluate the expressions in parentheses?

- The Identity Property of Multiplication
 The Zero Property of Multiplication
 The Identity Property of Addition

$(6 \cdot 0) + (2 \cdot 1) =$ _____ (Simplify your answer.)

3. A cash drawer contains ten-, five-, and one-dollar bills. An expression for the value in dollars of T tens, V fives, and N ones is $10T + 5V + 1N$. Find the value in dollars of the bills in the drawer for $T = 0$, $V = 8$, and $N = 4$.

The cash drawer contains \$ _____ in bills.

4. **Challenge** A beanbag target has three openings. The openings are red (worth 5 points), blue (worth 3 points), and yellow (worth 2 points). The expression $5R + 3B + 2Y + 0M$ gives the score for tossing R bags through red, B bags through blue, Y bags through yellow, and M bags that miss all three openings. In a game, each player tosses 10 beanbags. The results are shown. Which player has the greatest score? What is that score?

Game Results				
Player	R	B	Y	M
Pat	1	3	2	4
Sam	4	1	3	2
Sue	2	4	1	3

(1) _____ has the greatest score. That score is _____.

- (1) Sue
 Pat
 Sam

5. Using water-saving devices in a certain city could save nine hundred forty million, six hundred ninety-seven thousand, seven hundred two gallons of water each week. Use symbols to write the number of gallons of water that could be saved each week.
-

Choose the correct answer below.

- A. 796,207,449 gallons
 B. 940,697,702 gallons
 C. 940,679,702 gallons
 D. 904,679,702 gallons
-

6. Write the number that represents nine hundred million, twenty thousand, eight.
-

Which number represents nine hundred million, twenty thousand, eight?

- A. 900,020,008
 B. 920,000,008
 C. 900,200,008
 D. 920,008,000
-

7. The population of a country is 318,919,829. Write the population using words.
-

Choose the correct words below.

- A. three hundred eighteen thousand, nine hundred nineteen thousand
 B. three hundred eighteen million, nine hundred nineteen thousand, twenty-nine
 C. three hundred eighteen million, nine hundred nineteen thousand, eight hundred twenty-nine
 D. nine hundred nineteen million, three hundred eighteen thousand, eight hundred twenty-nine
-

8. Find 5×16 .
-

$5 \times 16 =$ _____

9. Find 3×59 .
-

$3 \times 59 =$ _____

10. Elizabeth saw that 5 buses were leaving her school to go to a museum. Each bus was carrying 76 students. What was the total number of students on the buses?
-

Choose the correct answer below.

- A. 356
 B. 350
 C. 380
 D. 385
-

11. Use the clue to complete the equation using some or all of the digits 2, 4, and 6.

Clue: The product is between 2,700 and 2,800.

$$\boxed{?} \times \boxed{?} 5 \boxed{?} = 2,7 \boxed{?} \boxed{?}$$

$$\begin{array}{ccccccccc} (1) & & (2) & & (3) & & (4) & & (5) \\ \underline{\quad} & \times & \underline{\quad} & 5 & \underline{\quad} & = & 2,7 & \underline{\quad} & \underline{\quad} \end{array}$$

- (1) 2 (2) 2 (3) 6 (4) 2 (5) 6
 6 6 4 6 4
 4 4 2 4 2
-

12. Find 4×127 .

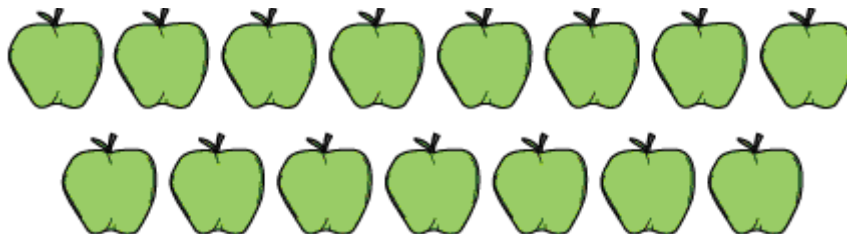
$$4 \times 127 = \underline{\hspace{2cm}}$$

13. What is the product of 6×700 ?

Choose the correct answer below.

- A. 42
 B. 420
 C. 4,200
 D. 42,000
-

14. Zuri picked the 15 apples pictured below. She separated all 15 apples into equal groups. How many apples could be in each group?



Choose the correct answer below.

- A. 8
 B. 6
 C. 3
 D. 4
-

15. Ms. Martin has 64 books to put into stacks. Each stack will have 5 books. How many complete stacks of 5 books can Ms. Martin make?

Choose the correct answer below.

- A. 4
 B. 12
 C. 10
 D. 13
-

16. Lasondra bought 7 movie tickets. The total cost was \$35, and each ticket cost the same amount. What was the cost of each movie ticket?

Choose the correct answer below.

- A. \$6
- B. \$4
- C. \$5
- D. \$7

-
17. A factory makes brain-twister puzzles. The puzzles are sold with either 3 or 9 in a pack. Decide if the factory can wrap each number of puzzles below into 3 packs only, 9 packs only, both 3 and 9 packs, or neither.

54,108	55,349	48,414	56,832
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Can the factory wrap 54,108 puzzles in 3 packs only or 9 packs only?

- In 3 packs, but not in 9 packs
- In neither 3 packs nor 9 packs
- In either 3 packs or in 9 packs
- In 9 packs, but not in 3 packs

Can the factory wrap 55,349 puzzles in 3 packs only or 9 packs only?

- In neither 3 packs nor 9 packs
- In 3 packs, but not in 9 packs
- In either 3 packs or in 9 packs
- In 9 packs, but not in 3 packs

Can the factory wrap 48,414 puzzles in 3 packs only or 9 packs only?

- In 9 packs, but not in 3 packs
- In neither 3 packs nor 9 packs
- In either 3 packs or in 9 packs
- In 3 packs, but not in 9 packs

Can the factory wrap 56,832 puzzles in 3 packs only or 9 packs only?

- In 9 packs, but not in 3 packs
- In neither 3 packs nor 9 packs
- In either 3 packs or in 9 packs
- In 3 packs, but not in 9 packs

-
18. Which statement is true for any two-digit multiple of 9?

Choose the correct answer below.

- A. The sum of its two digits is divisible by 9.
 - B. It must be an odd number.
 - C. It must be an even number.
 - D. It must be divisible by 6.
-

19. Use the divisibility rules to decide if 261 is divisible by 3 or 9.

Is 261 divisible by 3?

- No
 Yes

Is 261 divisible by 9?

- No
 Yes

20. A factory makes magnets. The magnets are sold 6 in a pack. Numbers of magnets are shown below. For which numbers can the factory wrap all the magnets in packages of 6?

48,526 48,695 52,674 54,714

Select all that apply.

- A. 52,674
 B. 48,526
 C. 48,695
 D. 54,714

21. Which statement is **not** true of all numbers that are divisible by 6?

Choose the correct answer below.

- A. They end in 2, 4, or 6.
 B. They are even.
 C. They are divisible by 3.
 D. One-third of such a number is divisible by 2.

22. Fill in the blank to make a true statement.

A 6 in the _____ place has 10 times the value of a 6 in the thousands place.

A 6 in the (1) _____ place has 10 times the value of a 6 in the thousands place.

- (1) tens ten-thousands
 ones
 hundred-thousands
 hundreds

23. Which digit in 8,234,679 has a value that is greater than 10 times the value of the first digit to its right?

Choose the correct answer below.

- A. 4
 B. 2
 C. 8
 D. 7

24. How many tens equal 5 hundreds?

Choose the correct answer below.

- A. 50
- B. 5
- C. 500
- D. 10

25. Use the digits 6, 7, 2, and 4 to create numbers to solve these number puzzles. All four digits in your numbers must be different.

(a) Fill in the blanks in $__27__$ to make a number greater than 4,672.

(b) Make a number less than 2,476.

(c) Make the greatest number you can.

(a) Which four-digit number greater than 4,672 can you make using the digits 6, 7, 2, and 4?

- A. 6,274
- B. 4,276
- C. 6,276
- D. 4,274

(b) The four-digit number less than 2,476 using the digits 6, 7, 2, and 4 is _____.

(c) The greatest four-digit number using the digits 6, 7, 2, and 4 is _____.

26. Compare 4,596 and 4,575.

Which inequality below compares 4,596 and 4,575 correctly?

- $4,596 > 4,575$
- $4,596 < 4,575$

27. Which number can you use in the box to make this number sentence true?

$$\square > 6,574 \qquad 6,541 \qquad 6,826 \qquad 6,086 \qquad 6,574$$

Choose the correct answer below.

- A. 6,826
- B. 6,574
- C. 6,541
- D. 6,086

28. Four used cars have been driven the following numbers of miles. Order the numbers of miles from greatest to least.

8,190 41,847 41,343 101,009

Order the numbers of miles from greatest to least.

Greatest $\xrightarrow{\hspace{10em}}$ Least
(1) (2) (3) (4)

- | | | | |
|---------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| (1) <input type="radio"/> 8,190 | (2) <input type="radio"/> 41,343 | (3) <input type="radio"/> 101,009 | (4) <input type="radio"/> 101,009 |
| <input type="radio"/> 101,009 | <input type="radio"/> 101,009 | <input type="radio"/> 8,190 | <input type="radio"/> 8,190 |
| <input type="radio"/> 41,343 | <input type="radio"/> 41,847 | <input type="radio"/> 41,847 | <input type="radio"/> 41,847 |
| <input type="radio"/> 41,847 | <input type="radio"/> 8,190 | <input type="radio"/> 41,343 | <input type="radio"/> 41,343 |
-

29. Four cities have the following populations. Order the populations from least to greatest.

9,063 61,669 100,764 61,761

Order the populations from least to greatest.

Least $\xrightarrow{\hspace{10em}}$ Greatest
(1) (2) (3) (4)

- | | | | |
|---------------------------------|---------------------------------|----------------------------------|----------------------------------|
| (1) <input type="radio"/> 9,063 | (2) <input type="radio"/> 9,063 | (3) <input type="radio"/> 61,761 | (4) <input type="radio"/> 61,761 |
| <input type="radio"/> 61,669 | <input type="radio"/> 61,669 | <input type="radio"/> 100,764 | <input type="radio"/> 9,063 |
| <input type="radio"/> 100,764 | <input type="radio"/> 100,764 | <input type="radio"/> 9,063 | <input type="radio"/> 100,764 |
| <input type="radio"/> 61,761 | <input type="radio"/> 61,761 | <input type="radio"/> 61,669 | <input type="radio"/> 61,669 |
-

30. Which of these numbers is greater than 80,806,906?

453,710 692,552,358 7,220,974 6,639,617

Which number is greater than 80,806,906?

- A. 7,220,974
 - B. 6,639,617
 - C. 453,710
 - D. 692,552,358
-

31. The table shows the populations of four cities in November 2009. Order the cities from least to greatest population.

City Populations in November 2009

City	A	B	C	D
Population	236,785	299,417	241,094	251,736

Order the cities from least to greatest population.

Least $\xrightarrow{\hspace{10em}}$ Greatest
 (1) (2) (3) (4)

- (1) City A (2) City B (3) City D (4) City B
 City D City C City B City C
 City B City D City C City A
 City C City A City A City D

32. The table shows the populations of four cities in 2011. Order the cities from greatest to least population.

City Populations in 2011

City	A	B	C	D
Population	473,762	444,007	433,575	474,973

Order the cities from greatest to least population.

Greatest $\xrightarrow{\hspace{10em}}$ Least
 (1) (2) (3) (4)

- (1) City D (2) City A (3) City C (4) City A
 City C City D City A City B
 City A City C City B City D
 City B City B City D City C

33. Mrs. Ruiz looked at four different cars before deciding which one to buy. The list shows the prices of the cars. Order the prices from least to greatest.

\$12,704 \$12,983 \$12,985 \$12,606

Which list shows the prices in order from least to greatest?

- A. \$12,606 \$12,983 \$12,704 \$12,985
 B. \$12,704 \$12,983 \$12,985 \$12,606
 C. \$12,606 \$12,704 \$12,983 \$12,985
 D. \$12,985 \$12,983 \$12,704 \$12,606

34. Complete each statement.

$$7 \div 9 = \frac{\square}{\square} \quad \frac{2}{5} = \square \div \square$$

$$7 \div 9 = (1) \underline{\hspace{2cm}}$$

$$\frac{2}{5} = (2) \underline{\hspace{2cm}}$$

- (1) $\frac{1}{7}$ (2) $5 \div 2$
 $\frac{9}{7}$ $5 \div 5$
 $\frac{1}{9}$ $1 \div 2$
 $\frac{7}{9}$ $2 \div 5$
-

35. Write an expression equivalent to $3 \div 8$.

Which expression is equivalent to $3 \div 8$?

- A. $\frac{8}{3}$
 B. $\frac{3}{8}$
 C. $\frac{1}{3}$
 D. $\frac{1}{8}$
-

36. Complete each statement.

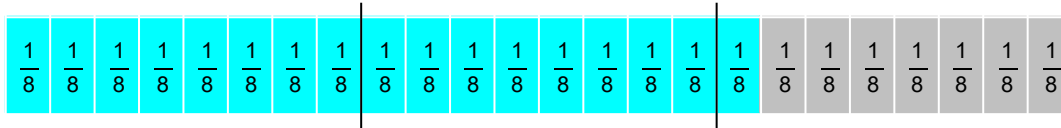
$$\frac{1}{8} = \square \div \square \quad 1 \div 6 = \frac{\square}{\square}$$

$$\frac{1}{8} = (1) \underline{\hspace{2cm}}$$

$$1 \div 6 = (2) \underline{\hspace{2cm}}$$

- (1) $8 \div 1$ (2) $\frac{6}{6}$
 $8 \div 8$ $\frac{6}{1}$
 $1 \div 8$ $\frac{1}{6}$
-

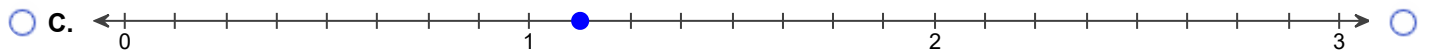
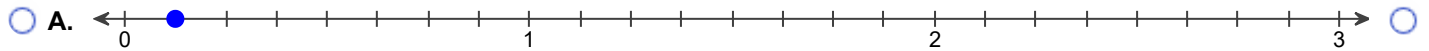
37. Write an improper fraction and a mixed number for the model. Then find the point on a number line that represents the number.



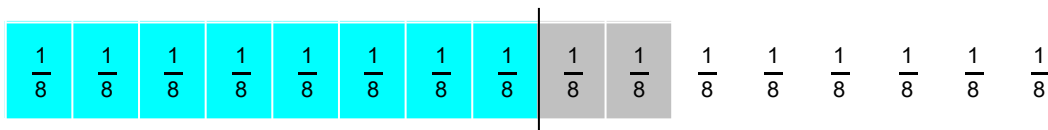
The model represents the improper fraction _____.

The model represents the mixed number _____.

Which number line correctly represents the number shown by the model?



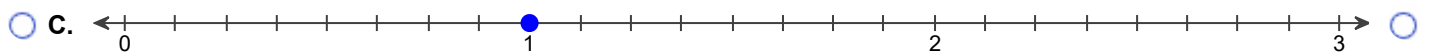
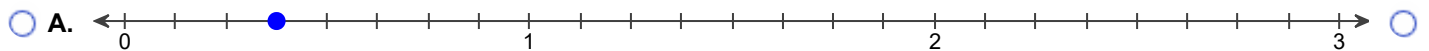
38. Write the improper fraction and mixed number that represent the model. Plot the number on a number line.



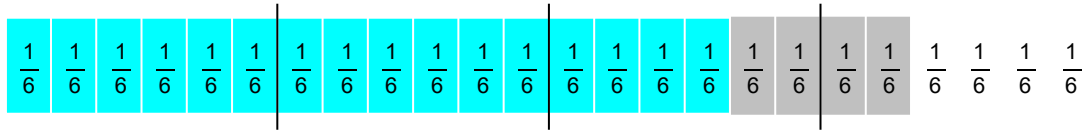
This model represents the improper fraction _____.

This model represents the mixed number _____.

Which number line correctly represents the number shown by the model?



39. Write an improper fraction and a mixed number for the model. Then plot the point on a number line.



This model represents the improper fraction _____ or the mixed number _____.

Which number line correctly displays the number shown in the model?

- A.
- C.

40. Write the mixed number $6\frac{4}{5}$ as an improper fraction.

$$6\frac{4}{5} = \underline{\hspace{2cm}}$$

41. Change the mixed number $12\frac{5}{6}$ to an improper fraction.

$$12\frac{5}{6} = \underline{\hspace{2cm}}$$

42. What improper fraction has the same value as $10\frac{3}{4}$?

Choose the correct answer below.

- A. $\frac{103}{4}$
- B. $\frac{40}{4}$
- C. $\frac{12}{4}$
- D. $\frac{43}{4}$

43. The table shows the force of gravity on four planets relative to gravity on Earth. Use $>$ or $<$ to complete each comparison.

$0.389 ? 0.918$ $0.918 ? 0.927$ $0.388 ? 0.389$

Planet	Gravity
Earth	1.000
A	0.388
B	0.389
C	0.927
D	0.918

0.389 (1) _____ 0.918

0.918 (2) _____ 0.927

0.388 (3) _____ 0.389

- (1) $<$ (2) $<$ (3) $<$
 $>$ $>$ $>$

44. Four friends ran a 100-meter race. The table shows the time each person took to complete the race. Which number sentence below is true?

$16.994 > 17.904$ $17.93 > 17.904$
 $17.904 < 17.87$ $17.87 < 16.994$

100-Meter Race	
Student	Time (seconds)
Albert	17.87
Barney	17.93
Cal	17.904
Dana	16.994

Which number sentence is true?

- A. $17.904 < 17.87$
 B. $17.87 < 16.994$
 C. $16.994 > 17.904$
 D. $17.93 > 17.904$

45. Which statement below is true?

$5.257 > 5.750$ $6.234 > 6.094$
 $2.605 < 2.375$ $3.365 < 3.335$

Choose the correct answer below.

- A. $6.234 > 6.094$
 B. $2.605 < 2.375$
 C. $5.257 > 5.750$
 D. $3.365 < 3.335$

46. Find $958 \div 2$.

$958 \div 2 =$ _____ R _____

47. What is the remainder when you find $701 \div 4$?

The remainder is _____.

48. A student says $589 \div 4 = 147 \text{ R } 2$. Is the student correct or incorrect? If the student is incorrect, give the correct result. If the student is correct, so state.

Select the correct choice below. If necessary, fill in the answer boxes to complete your choice.

- A. The student is correct.
- B. The student is incorrect. The correct result is _____ R _____.

-
49. Decide if each population is divisible by 2, 5, or 10.

City A: 310,635

City B: 240,506

Is 310,635 divisible by 2?

- No
- Yes

Is 310,635 divisible by 5?

- No
- Yes

Is 310,635 divisible by 10?

- Yes
- No

Is 240,506 divisible by 2?

- No
- Yes

Is 240,506 divisible by 5?

- Yes
- No

Is 240,506 divisible by 10?

- Yes
- No
-

50. Use the divisibility rules to decide if 56,832 is divisible by 2, 5, or 10.

Is 56,832 divisible by 2?

- Yes
- No

Is 56,832 divisible by 5?

- Yes
- No

Is 56,832 divisible by 10?

- Yes
- No