

**Submit answers using Illuminate Code:** [7TT9B86](#)

[Lesson Video](#)

[Finding a Percent of a Number](#)   [What Percent Is It?](#)   [Percents: Missing Total](#)

1. Arvon went to watch The Avengers at the movie theater. He noticed that 60% of the movie extras during one of the scenes were teachers from Achievement First Amistad Academy. He recognized 24 teachers from his school. How many movie extras were there in all?

- a) 30
- b) 60
- c) 40
- d) 50

2. A grizzly bear sheds 20% of its weight from hibernation in three weeks, which is 80 pounds. What was the bear's initial weight?

- a) 800
- b) 400
- c) 160
- d) 640

3. Stephanie put 36 of her t-shirts in her dresser. If she has 90 t-shirts, what percent of all her t-shirts did Stephanie put in the dresser?

- a) 30%
- b) 35%
- c) 40%
- d) 45%

4. People of a small city voted on whether to allow a developer to build a shopping center. The number of votes in favor of the shopping center was 4,400. The number of votes against the shopping center was 17,600. What percent of the voters were in favor of building the shopping center?

- a) 20%
- b) 25%
- c) 40%
- d) 80%

5. The circus was selling tickets for their performance at the Dewey Civic Center. The Dewey Civic Center has 1,600 seats. If the circus' ticket agency sold tickets for 85% of their seats, how many seats are empty?

- a) 160
- b) 1,360
- c) 480
- d) 240

6. Ethan correctly answers 80% of the total questions on his history test. He correctly answers 32 questions. Enter the number of questions on Ethan's history test.

- a) 40 questions
- b) 48 questions
- c) 64 questions
- d) 240 questions

7. Demi called in to Hot 97 one day for Summer Jam tickets. She called at 3:00 pm because 65% of all the tickets that were going to be given out that day were being given out at 3:00 pm. 130 tickets were given out at 3:00 pm. How many tickets did Hot 97 give away that day?

- a) 150 tickets
- b) 175 tickets
- c) 200 tickets
- d) 260 tickets

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8. Sarah answered 75% of the questions on a test correctly. If she answered 60 questions correctly, how many questions were on the test?

- a) 20 questions
- b) 130 questions
- c) 80 questions
- d) 240 questions

9. Which equations can be used to find the total when 85% of the total is 68? Circle all that apply.

- a.  $\frac{85}{100} = \frac{x}{68}$
- b.  $\frac{17}{20} = \frac{68}{x}$
- c.  $0.85 = \frac{68}{x}$
- d.  $\frac{68}{x} = \frac{85}{100}$
- e.  $\frac{17}{50} = \frac{68}{x}$
- f.  $\frac{68}{100} = \frac{85}{x}$

[Lesson Video](#)

**Submit answers using Illuminate Code:** [S49FKPP](#)

1. Mr. Jones has 35 students in his class. 40% are girls. How many boys are in Mr. Jones class?
  - a) 14
  - b) 15
  - c) 18
  - d) 21
  
2. In art class, Marvin painted tiles to use for a project. For every 5 tiles he painted blue, he painted 8 tiles green. If Marvin painted 104 tiles, what % of the tiles are green?
  - a) 62%
  - b) 40%
  - c) 64%
  - d) 38%
  
3. What % of 45 is 90?
  - a) 50%
  - b) 200%
  - c) 150%
  - d) 20%
  
4. A video uploaded had 54 'up votes'. If the ratio of 'up votes' to 'down votes'

was 9 : 8, how many 'down votes' did the video get?

- a) 6
- b) 48
- c) 72
- d) 102

5. David wanted to buy lunch for him and his friends. The restaurant was having a special on Tuesdays, 2 large pizzas and 4 cans of soda for \$21. This is 30% off the regular price. What would David pay for this same meal on Thursday?

- a) \$30
- b) \$35
- c) \$40
- d) \$45

6. While completing a race, Will spent 72 minutes walking. If his ratio of time walking to jogging was 8 : 1, how many minutes did he spend completing the race?

- a) 9
- b) 27
- c) 90
- d) 81

7. A fast food restaurant sells two sizes of fries, small and large. On Friday they

sold 70 fries total. If 21 of the fries sold were small, what is the ratio of large fries sold to small fries sold?

- a) 7:3
- b) 21:30
- c) 70:21
- d) 30:21

8. A ski mountain sold 235 lift tickets on Monday, 337 on Tuesday, 450 on Wednesday and 328 on Thursday. On Friday the mountain sold 25% of its weekday tickets. How many tickets did the mountain sell on Friday?

- a) 400
- b) 450
- c) 500
- d) 600

**Submit answers using Illuminate Code:** [S49FKPP](#)

9. Yukiko plays on the softball team at her school. The team won 9 of its first 12 games. At that rate, how many games will Yukiko's team win if it plays 64 games in all?

- a) 45
- b) 48
- c) 50
- d) 58

10. Thomas bought a new backpack that was 30% off the original price. The sale resulted in a \$15 discount. What was the original price of the backpack?

- a) \$45
- b) \$50
- c) \$65
- d) \$70



[Day 3 Example Video](#)

**Submit answers using Illuminate Code:** [525B7RB](#)

**Evaluating Expression (6.EE.1)**

1.

Which expression has a value of 4?

**A.**  $12 \div 2^2 + 2$

**B.**  $24 \div (2 + 1) - 2^2$

**C.**  $16 \div (1 + 1)^2 - 1$

**D.**  $36 \div (2 + 2) - 3^2$

2. Evaluate the expression.

$$7^2 - (12 + 17)$$

A) 52

B) 19

C) 20

D) -15

3. Simplify the expression

$$[14.5 - (12 - 11 + 2)^2] \times 5^2$$

A) -10.5

B) 337.5

C) 137.5

D) 85

4. Which expression below is equivalent to  $7^3$  ?

A)  $7^2 \times 7^2$

B)  $3 \times (7 + 3)^2 + (7^2 - 4 \times 2)$

C)  $4 \times 10^2 + 267$

D)  $12 \times 40 - 11^2 - 16$

5. Four scholars were asked to evaluate the expression  $[(2^3 - 2 + 6) \times 2]^2$ . Who responded correctly? Show your work

- (a) Alex's answer: 0
- (b) Amy's answer: 400
- (c) Cory's answer: 576
- (d) Kenneth's answer: 48

6. Evaluate the expression.

$$24 + (4^3 (8.2 - 2))$$

- A) 121
- B) 99
- C) 547.4
- D) 420.8

7. As you simplify this expression, what is the 3<sup>rd</sup> step?

$$6^2 + (13.5 - 5 + 2) \times 2^3 + 3$$

- A) Subtract
- B) Add
- C) Exponents
- D) Multiply

8. As you simplify the expression, what is the 5<sup>th</sup> step?

$$8^2 + (15 + 5 - 2) \times 2^3 + 2$$

- A) Multiply
- B) Exponents
- C) Add
- D) Subtract

Submit answers using Illuminate Code: [525B7RB](#)

9. Which equation shows the value of 2 used as a factor 5 times?

A.  $2(5) = 10$

B.  $2^5 = 10$

C.  $5^2 = 25$

D.  $2^5 = 32$

10.

A high-speed elevator can rise 480 feet in 30 seconds. Which expression represents the rate, in feet per minute, of the elevator?

**A**  $480 \times 30$

**B**  $480 \div 30$

**C**  $480 \times 2$

**D**  $480 \div 2$

**Submit answers using Illuminate Code:** [XAA5E8S](#)

**Day 4 Example Video**

1. Which expression below is equivalent to  $9x + 12y - 18$ ?

- a.  $3xy$
- b.  $3(3x + 12y - 18)$
- c.  $3(3x + 4y - 6)$
- d.  $3(3x + 4y + 6)$

2. Which of the expressions below is not equivalent to  $3c + 11c$ ?

- a.  $14c$
- b.  $3(c + 11c)$
- c.  $C(3 + 11)$
- d.  $\frac{1}{2}c(6 + 22)$

3. Which expression below is equivalent to  $60y - 48$ ?

- a.  $12y$
- b.  $12(5y - 4)$
- c.  $12(5y + 4)$
- d.  $6(10y - 48)$

4. Ms. Pearson wrote the expression below on the chalkboard for her class. She asked the students to write an equivalent expression using no more than one set of parentheses.  $4(3x + 5y + 2z) + 3(x - z)$

Which of the four students below wrote an expression that is equivalent to Ms. Pearson's expression?

- a. Tom wrote  $12x + 20y + 8z$
- b. Jenna wrote  $5(3x + 4y + z)$
- c. Chris wrote  $15x + 20y - 5z$
- d. Lily wrote  $15x + 20y + 11z$

5. Select all expressions that are equivalent to the expression:  $16n + 8$

- a.  $16(n + 8)$
- b.  $2(n + 4)$
- c.  $8(2 + 1)$
- d.  $\frac{1}{2}(32n + 16)$



6. A square with one side length represented by an expression is shown below:



$$6(3x + 8) + 32 + 12x$$

Using the properties of operations to write equivalent expressions, which of the following expressions is not equivalent to the side length  $6(3x + 8) + 32 + 12x$ ?

- a.  $110x$
  - b.  $30x + 80$
  - c.  $10(3x + 8)$
  - d.  $18x + 48 + 32 + 12x$
7. Which pair of expressions are equivalent?

- a.  $7 + 21n$  and  $2(5 + 3n)$
- b.  $7 + 21n$  and  $3(4 + 7n)$
- c.  $7 + 21n$  and  $7(1 + 3n)$
- d.  $7 + 21n$  and  $7(7 + 21n)$

8. Which expressions are not equivalent to  $24p + 32$ ?

- a.  $8(3p + 4)$
- b.  $6(4p + 6)$
- c.  $4(6p + 8)$
- d.  $\frac{1}{2}(48p + 64)$

9. Which pair of expressions are equivalent?

- a.  $x + x + 3y$  and  $2x + 3y$
- b.  $x + x + x + 3y$  and  $3xy$
- c.  $4(x + 3)$  and  $4x + 3$
- d.  $6x + 4y$  and  $12x + 2y$

10. The area of a rectangle is  $12n + 36$ . Which of the following are not possible dimensions of the rectangle?

- a. 12 and  $(n+3)$
- b. 2 and  $(6n + 18)$
- c. 6 and  $(2n + 6)$
- d. 4 and  $(3n + 8)$

**Submit answers using Illuminate Code:** [XAA5E8S](#)

11. Which expression is not equivalent to  $p + r + p + r + p + 3p$ ?

a.  $6p + 2r$

b.  $3(2p + 2r)$

c.  $2(3p + r)$

d.  $\frac{2}{3}(9p + 3r)$

12. Which expression is equivalent to  $9c + 12d + 2c$ ?

a.  $18c^2 + 12d$

b.  $11c + 12d$

c.  $11c^2 + 12d$

d.  $23cd$