

1. What is the value of x if $4x - 9 = 11$?

A $\frac{1}{2}$

C 5

B 2

D 20

2. What is the value of x in the equation $24 - 2x = 16$?

A 4

C 12

B 8

D 20

3. Solve the given equation for x .

$$8 - \frac{6}{5}x = 10$$

A $-3\frac{1}{5}$

C $\frac{5}{3}$

B $-\frac{5}{3}$

D $3\frac{1}{5}$

4. Which value for x makes the following equation true?

$$\frac{x}{9} + 16 = 20$$

A $\frac{4}{9}$

C 13

B $\frac{20}{9}$

D 36

5. What is the value of x in $4x - 2 = 10$?

A 0.5

C 3

B 2

D 5

6. What is the solution to this equation?

$$2a + 5 = 15$$

A $a = 12$

C $a = 8$

B $a = 10$

D $a = 5$

7. What is the value of x if $7 - 9x = 10$?

A $-\frac{17}{9}$

C 3

B $-\frac{1}{3}$

D $\frac{17}{9}$

8. What is the value of w in the equation $82 = 9w + 10$?

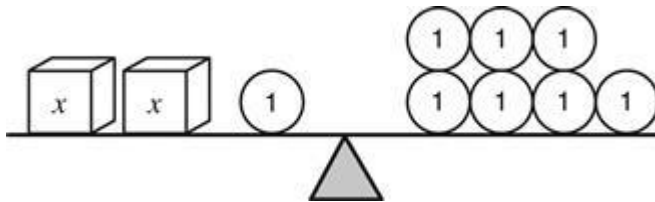
A 2

C 63

B 8

D 101

9. The model below represents the equation $2x + 1 = 7$.



What is the value of x ?

A 1

C 3

B 2

D 4

10. Solve $64 = 3x + 22$ for x .

A 14

C 24

B 21.33

D 28.67

11. What is the value of x if $5x - 10 = 75$?

A 13

C 65

B 17

D 85

12. Solve for x .

$$10x - 3x + 5 = 26$$

A $\frac{13}{6}$

C 3

B $\frac{31}{7}$

D 13

13. Which value of x will make the equation $12x - 30 = 6$ true?

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|----------|----|----------|---|
| A | -3 | C | 2 |
| B | -2 | D | 3 |

14. What is the value of x if $5x + 55 = 35$?

- | | | | |
|----------|-----|----------|----|
| A | -4 | C | 18 |
| B | -20 | D | 90 |

15. Which value for w makes the equation true?

$$-8w + 2 = 3$$

- | | | | |
|----------|----------------|----------|---|
| A | $-\frac{1}{2}$ | C | 8 |
| B | $-\frac{1}{8}$ | D | 9 |

16. Which number is the solution to the following equation?

$$-\frac{1}{2}n + 6 = -10$$

- | | | | |
|----------|-----------------|----------|----|
| A | $-\frac{31}{2}$ | C | -8 |
| B | $\frac{10}{3}$ | D | 32 |

17. What is the first step to solve for q in the equation $8q + 6 = 72$?

- | | | | |
|----------|-----------------------|----------|-----------------------------------|
| A | $8q + 6 + 6 = 72 + 6$ | C | $\frac{8q+6}{8} = \frac{72}{6}$ |
| B | $8q + 6 - 6 = 72 - 6$ | D | $8 \times (8q + 6) = 72 \times 8$ |

18. What value of x makes the equation $-4 + \frac{1}{2}x = 8$ true?

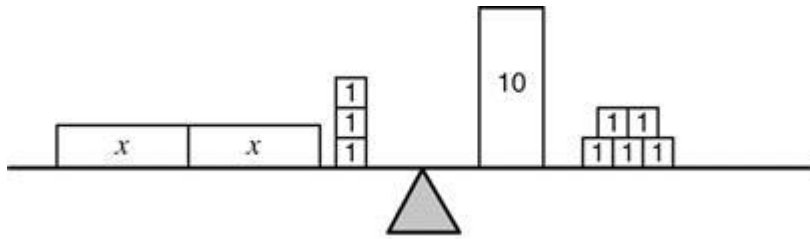
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|----------|---|----------|----|
| A | 6 | C | 12 |
| B | 8 | D | 24 |

19. What is the value of x if $\frac{x}{4} + 2 = 15$?

- A 52
- B 42

- C 58
- D 68

20. The figure below models the equation $2x + 3 = 15$.



What is the value of x ?

- A 15
- B 12

- C 6
- D 2

21. Which value for x makes the following equation true?

$$-2x - 4 = -6$$

- A 1
- B 0

- C -1
- D 5

22. What value of y will make the equation $\frac{y}{2} - 2 = 3$ true?

- A 2
- B 5

- C 8
- D 10