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HW 1-3

Int 2

Solving Two-Step Equations & Inequalities

Unit 1

Solve each equation. Check your solution. Graph the solution set for each inequality.

1. $5 = 4a - 7$

$a = 3$

5. $2g - 3 = -19$

$g = -8$

9. $13 - 3d = -8$

$d = 7$

2. $16 = 5x - 9$

6. $-3 - 6x = 9$

10. $\frac{5}{7} + 2y = 3\frac{4}{7}$

3. $11 = 2b + 17$

$b = -3$

7. $-5y - 25 \leq 25$

$y \geq -10$

11. $\frac{3}{4} = \frac{5}{12}w + 2\frac{1}{3}$

$w = \frac{-19}{5}$

4. $-17 > 6p - 5$



8. $3 - 8c = 35$

12. $\frac{2}{5}m - \frac{3}{10} = \frac{7}{10}$



13. Larina received a \$50 gift card to an online store. She wants to purchase some bracelets that cost \$8 each. There will be a \$10 overnight delivery fee. Solve $8n + 10 = 50$ to find the number of bracelets she can purchase.

$n = 5$ bracelets

14. LaTasha paid \$75 to join a summer golf program. The course where she plays charges \$30 per round. Since she is a student, she receives a \$10 discount per round. If LaTasha spent \$375, use the equation $375 = 20g + 75$ to find how many rounds of golf LaTasha played.

Solve each equation. Check your solution. Graph the solution set for each inequality.

15. $-\frac{2}{3}m - 4 = 10$

$m = -21$

19. $\frac{6+z}{10} = -2$

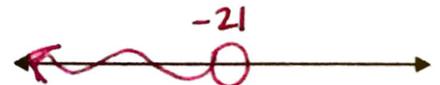
$z = -26$

23. $-\frac{2}{3}m - 4 > 10$

$m < -21$

16. $\frac{a-4}{5} = 12$

20. $15 - \frac{w}{4} = 28$



17. $\frac{n+3}{8} = -4$

$n = -35$

21. $13 = \frac{g}{3} + 4$

$g = 27$

24. $\frac{y-4}{2} = -7$

18. $-\frac{1}{2}x - 7 = -11$

22. $\frac{x+7}{-3} = 5$

25. What is the value of m if $-6m + 4 = -32$?

- A. 6
- B. $4\frac{2}{3}$
- C. $2\frac{1}{3}$
- D. -6

26. Some friends decide to go to the aquarium together. Each person pays \$7.50 to get in. They spend a total of \$40 for the shark exhibit. The total cost is \$70. Solve $7.5x + 40 = 70$ to find how many people went to the aquarium.

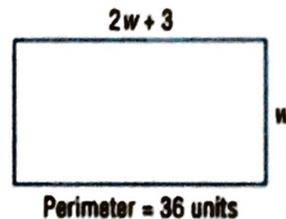
$$x = 4 \text{ people}$$

27. Brent had \$26 when he went to the fair. After playing 7 games, he had \$15.50 left. Solve $15.50 = 26 - 7p$ to find the price for each game.

$$p = \$1.50 \text{ per game}$$

28. The width of the rectangle below can be found by solving the equation $6w + 6 = 36$. What is the width of the rectangle?

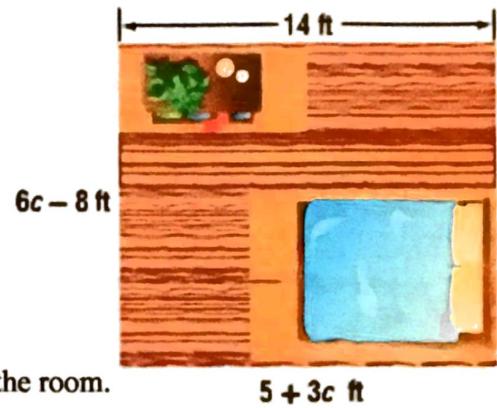
- A. 4 units
- B. 5 units
- C. 6 units
- D. 7 units



29. If Mr. Arenth wants to put new carpeting in the room show, how many square feet should he order?

Part A. The length of the room is 14 ft. Solve for c .

$$c = 3$$



Part B. Use the value you found for c to find the width of the room.

10 feet

Part C. Calculator the area of the room. Remember Area = length*width

140 feet squared

30. What value of y makes the equation $\frac{y}{4} - 7 = 3$ true?

31. What is the value of x in the following equation?

$$40 = -11 + 3x$$

A. -17

B. $-\frac{29}{3}$

C. $\frac{29}{3}$

D. 17