

Chapter 2 Review

Name: _____

Solve each equation. Show your work!!

1. $x - 20 = -30$

2. $\frac{2}{3}w = 24$

3. $17 = 12 - 2d$

4. $2x - 3 - 4x = 37$

5. $12n + 4 = -10n - 48$

6. $-26 = 3(2q - 1) - 5q$

7. $-10 = \frac{1}{3}(12f - 24)$

8. $\frac{k}{5} + 10 = 3$

9. $\frac{x}{8} - \frac{3}{4} = \frac{1}{2}$

10. $-2g + 5 = 12 - g$

11. $2x + 2 = 2(x + 1)$

12. $2(4a + 8) = 4(4 + 2a)$

Write and solve an equation that represents each situation.

13. Bob earns \$800 per month for painting houses. He also receives \$300 for each house he paints. If he wants to earn \$2000 each month, how many houses does he need to paint?

14. Billy is looking to join a gym. Gym A charges \$3 per workout. Gym B charges a \$15 enrollment fee & \$1 per workout. What is the minimum number of workouts that Billy needs in order for Gym B to be the better deal?

Solve each equation for y. Then evaluate for the given x-values.

15. $\frac{1}{2}y - 3x = 6$ evaluate for: $x = -2, 0, 5$

16. $5y + 2x = 7$ evaluate for: $x = -1, 0, 2$

Solve each equation for x.

17. $\frac{1}{2}x - z = y$

18. $ax + bx + c = d$

Convert. Show your work!!

19. 4 gal/hr = ___ qts/min

20. Tony ran 3 km 15 minutes. What was his average speed in miles per hour?

21. Which is the better buy, 2 shirts for \$35 or 7 shirts for \$90? Explain.

Solve. Show your work!!

22. $\frac{5}{2.6} = \frac{15}{x}$

23. $\frac{3h+4}{10} = \frac{5}{2}$

24. What percent of 8 is 12?

25. What is 25% of 425?

26. Forty-seven students, out of 100 surveyed, chose basketball as their favorite sport. If the school has 2700 students, how many students would likely say that basketball is their favorite sport?

27. Tommy opened a savings account with a simple interest rate of 5.5%. He initially deposited \$600. If he doesn't deposit any more, how much will be in his account after 10 years?

28. The opening bid for a painting at auction is \$2000. If the painting actually sells for \$5000, what is the percent of increase to the nearest percent?

29. You estimate your teacher is 35 years old. He is actually 42. What is the percent error?