

Practice Test - Chapter 2

Translate each sentence into an equation.

1. The sum of six and four times d is the same as d minus nine.
2. Three times the difference of two times m and five is equal to eight times m to the second power increased by four.

Solve each equation. Check your solutions.

3. $x - 5 = -11$

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

5. $\frac{t}{6} = -3$

Solve each equation. Check your solution.

6. $2a - 5 = 13$

7. $\frac{p}{4} - 3 = 9$

8. **MULTIPLE CHOICE** At Mama Mia Pizza, the price of a large pizza is determined by $P = 9 + 1.5x$, where x represents the number of toppings added to a cheese pizza. Daniel spent \$13.50 on a large pizza. How many toppings did he get?

A 0

B 1

C 3

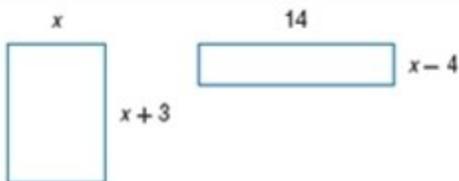
D 5

Solve each equation. Check your solution.

9. $5y - 4 = 9y + 8$

10. $3(2k - 2) = -2(4k - 11)$

11. **GEOMETRY** Find the value of x so that the figures have the same perimeter.



12. Evaluate the expression $|3t - 2u| + 5v$ if $t = 2$, $u = -5$, and $v = -3$.

Solve each equation. Then graph the solution set.

13. $|p - 4| = 6$

14. $|2b + 5| = 9$

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Solve each proportion. If necessary, round to the nearest hundredth.

15. $\frac{a}{3} = \frac{16}{24}$

16. $\frac{9}{k+3} = \frac{3}{5}$

17. **MULTIPLE CHOICE** Akiko uses 2 feet of thread for every three squares that she sews for her quilt. How many squares can she sew if she has 38 feet of thread?

F 19

G 57

H 76

J 228

18. State whether the percent of change is a percent of *increase* or a percent of *decrease*. Then find the percent of change. Round to the nearest whole percent.

original: 54 new: 45

19. Find the total price of a sweatshirt that is priced at \$48 and taxed at 6.5%.

20. **SHOPPING** Kirk wants to purchase a wide-screen TV. He sees an advertisement for a TV that was originally priced at \$3200 and is 20% off. Find the discounted price of the TV.

21. Solve $5x - 3y = 9$ for y .

22. Solve $A = \frac{1}{2}bh$ for h .

23. **CHEMISTRY** Deon has 12 milliliters of a 5% solution. He also has a solution that has a concentration of 30%. How many milliliters of the 30% solution does Deon need to add to the 5% solution to obtain a 20% solution?

24. **BICYCLING** Shanee bikes 5 miles to the park in 30 minutes and 3 miles to the library in 45 minutes. What was her average speed?

25. **MAPS** On a map of North Carolina, the distance between Charlotte and Wilmington is 14.75 inches. If 2 inches equals 24 miles, what is the approximate distance between the two cities?