

1. Four multiplied by the difference of the square of y and twelve is the same as the product of five and x .

For problems #2-3 translate equations into a sentence.

2. $2(b + 10) = 4$

3. $y + 3x^2 = 5x$

Write a story problem for the following situation.

4. x = the price of shirts

$x + 20$ = the price of jeans

$$4x + 2(x + 20) = 225$$

For problems #5- 12, solve each equation and check your solution.

5. $\frac{1}{2}x + 1 = \frac{1}{4}x - 6$

7. $\frac{3k-7}{5} + 5 = 16$

6. $-28 = p + 21$

8. $-\frac{t}{5} = -8$

9. $\frac{5r}{2} - 6 = 19$

11. $10 - 3(w + 4) = w - 7$

10. $3b - 13 + 4b = 7b + 1$

12. $2x - 5(x - 3) = 2(x - 10)$

13. If $7n + 6 = 4n - 9$, then $4n - 10 =$ _____

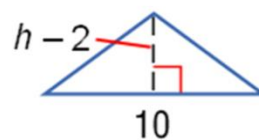
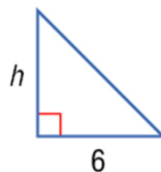
14. Find two consecutive integers whose sum is 45.

15. Find four consecutive odd integers whose sum is 56.

16. Two thirds of a number reduced by eleven is equal to four more than the number. Find the number.

17. Find value of x so that the two triangles have the same area.

Triangle area = $\frac{1}{2}bh$



Solve the following proportions for the variable. Check your solution.

18. $\frac{3}{4} = \frac{n}{20}$

20. $\frac{6}{14} = \frac{7}{x-3}$

19. $\frac{33}{b} = \frac{15}{45}$

21. $\frac{9b-3}{9} = \frac{5b+5}{3}$

22. Two out of five students in the ninth grade have braces. If there are 325 students in ninth grade, how many of them have braces? Set up a proportion and solve.

23. Simon thinks he can complete one question on his homework in two minutes. If there are 35 questions how many hours will it take him to finish his homework? Set up a proportion and solve.

State whether the percent of change is a percent increase or a percent decrease. Then find the percent change.

24. Original: 25
New: 18

25. Original: 36
New: 45

26. The cost of a compact disc is \$18. If the sales tax is 6%, find the total price.

27. A store sells a certain digital camera model for \$108. During a special promotion, the camera is discounted by 30 percent. As you are paying the cashier asks if you would like to donate 2.3% to education, of course you do. What is the final price of your camera?
28. Mr. Thompson plans to purchase a used car priced at \$8400. He will receive a 15% employee discount and then will have to pay a 5.5% sales tax. What will be the final price if the car?
- 29. After you and a friend eat your delicious meals Macaroni Grill your combined bill is \$35.73. Your friend has a 12% discount coupon and then you decided to tip 20%. What is your final price?**

Rate yourself!! IF you feel weak in an area look up that section in the study guide provided!

Targets	Learning Targets	Got it	Ok	No way
T 2-1	I can translate between sentences and equations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T 2-2	I can solve multi-step equations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T 2-3	I can solve equations with variables on both sides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T 2-4	I can interpret and use a proportion to solve a problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Study Guide in Book - More Studying Help!

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