

Simplify.

- $5(8 - 3^2) + 7$
- $(14 + 3 \cdot 56 \div 3 - 56) \div 2$
- Evaluate: $(2a \div 3 + 8) - 3b$ if $a = 12$ and $b = -3$
- Evaluate: $2y^2(x + y)$ when $x = 6$ and $y = 2$
- The formula to determine the stopping distance of a car is $D = 0.05r^2 + r$ where r is the speed in mph and D is the distance in feet. If the speed of a car is 45 mph, find the stopping distance.
- To which set of numbers does 0 belong?
- To which set of numbers does 8.3 belong?
- Which property is illustrated? $(8 + 7) + 6 = 8 + (7 + 6)$
- Which property is illustrated? $3 \cdot (2 + 6) = 3 \cdot 2 + 3 \cdot 6$
- Which property is illustrated? $5(3 + 6) = (3 + 6)5$
- Order from small to large: $6, -\frac{2}{5}, \pi, -0.38, 3.14$
- Order from small to large: $-\sqrt{11}, -\pi, -\frac{13}{3}, 2, 0.$
- Write an algebraic expression for *the difference of three times a and b*.
- Write an algebraic expression for *the sum of four times b and c*.
- Write an algebraic expression for *three more than four times the square of a number*.
- Translate into an algebraic equation. *The sum of three and five times a number is equal to 17.*
- Solve. $3x + 9 = x - 4$
- Solve. $2(x + 2) = 7$
- Solve. $3(x + 4) = -8$
- Solve. $\frac{m}{7} + 1 = \frac{3}{7}$
- 21.** Solve. $\frac{x}{2} + \frac{x}{4} = 3$
- Solve for g in $U = mgh$
- Solve for y in the equation $S = 4x^2y$

24. K.T. paid \$31 for 3 bottles of saline solution and 2 packages of contact lens cleaning tablets. If a bottle of saline solution cost \$4.50, how much does a package of cleaning tablets cost?
25. The perimeter of a rectangle is 82 centimeters. What is the length of the longer side if the shorter side measures 8 centimeters?
- [A] 30 cm [B] 16 cm [C] 33 cm [D] 25 cm
26. List all the numbers from 1 to 50 that start with the letter T. How many numbers are in the list?
- [A] 22 [B] 25 [C] 24 [D] 27
27. Solve. $|2x - 1| = 7$
28. Solve. $3|2x - 3| = 15$
29. Solve the inequality. $a + 4 \leq 2$
30. Solve the inequality. $\frac{x}{7} > 4.6$
31. Solve $\frac{x}{-3} + 3 \geq 5$ and graph the solution set.
32. Solve $\frac{x}{2} - 1 \geq -3$ and graph the solution set.
33. Solve and graph. $2(x - 7) \geq 5x - 8$
34. Solve and graph. $3(x + 2) \leq 4x - 2$
35. Barclay's test scores are 89, 72, 83, and 76. Write an inequality that tells what score Barclay need on the next test to maintain a test average of at least 80.
36. Solve and graph. $6x - 4 \geq 20$ or $\frac{x}{2} \leq -2$
37. Graph the solution set. $x + 2 \leq -2$ or $x > 5$
38. Solve and graph. $4x - 6 > 6$ and $2x - 5 < 15$
39. Solve and graph. $|x + 5| \leq 3$
40. Solve and graph. $|x - 1| < 9$