

Unit 1 Test

Review

Write an algebraic expression for each verbal expression

1. nine times of the square of a number
2. 7 less than a number times 2
3. Three times x less than y is five times.

Use the Distributive Property to rewrite each expression. Then evaluate.

4. Simplify $3(2x + 4y - y)$
5. Simplify $2(a + 3b) + 3(4a + b)$.
6. Find $6(14 + 7)$.

Simplify each expression.

7. $6x + 2(3x - 2)$
8. $4(x^2 - 4x + 6)$
9. $8ab + 5(2ab - ab)$

Solve each equation.

10. $m - 13 = 8$
11. $5w = -75$

12. $-\frac{3}{8}y = -24$

13. $5x + 3 = 23$

14. $2x + 7 = 5x + 16$

15. $-3(h - 6) = 5(2h + 3)$

16. $\frac{2}{3}(6x + 30) = x + 5(x + 4) - 2x$

17. Solve $2x - y = y$ for x

18. $3b = 6v - 3b$, for v

Solve each inequality. Then graph the inequality

19. $-51 \leq x + 38$

20. $4w - 6 > 6w - 20$

21. $8r - (5r + 4) \geq -31$

22. $-3.5z < 42$

Solve each compound inequality. The graph the solution set.

23. $3t < -3$ and $t \leq 5$

24. $6 < x - 10 \leq 2$

25. $t - 4 \geq 4t + 8$ or $3t > 14 - 4t$

Find each sum or difference.

26. $(9t^2 + 4t - 6) - (t^2 - 2t + 4)$

27. $(3c^2 - 8c + 5) + (c^2 - 8c - 6)$