Check Your Understanding

Example 1
Find each product.

1. \(5w(-3w^2 + 2w - 4)\)
2. \(6g^2(3g^3 + 4g^2 + 10g - 1)\)
3. \(4km^2(8km^2 + 2km + 5k)\)
4. \(-3p^4r^3(2p^2r^4 - 6p^6r^3 - 5)\)
5. \(2ab(7a^4b^2 + a^5b - 2a)\)
6. \(c^2d^3(5cd^7 - 3c^3d^2 - 4d^3)\)

Example 2
Simplify each expression.

7. \(t(4t^2 + 15t + 4) - 4(3t - 1)\)
8. \(x(3x^2 + 4) + 2(7x - 3)\)
9. \(-2d(d^3c^2 - 4dc^2 + 2d^2c) + c^2(dc^2 - 3d^4)\)
10. \(-5w^2(8w^2x - 11wx^2) + 6x(9wx^4 - 4w - 3x^2)\)

Example 3
11. GRIDDED RESPONSE
Marlene is buying a new plasma television. The height of the screen of the television is one half the width plus 5 inches. The width is 30 inches. Find the height of the screen in inches.

Example 4
Solve each equation.

12. \(-6(11 - 2c) = 7(-2 - 2c)\)
13. \(t(2t + 3) + 20 = 2t(t - 3)\)
14. \(-2(w + 1) + w = 7 - 4w\)
15. \(3(y - 2) + 2y = 4y + 14\)
16. \(a(a + 3) + a(a - 6) + 35 = a(a - 5) + a(a + 7)\)
17. \(n(n - 4) + n(n + 8) = n(n - 13) + n(n + 1) + 16\)