

T8-1 Retake Worksheet

I can write polynomials in standard form, name leading coefficient, name degree and perform addition and subtraction on polynomials.

Find each sum or difference.

1. $(4y + 5) + (-7y - 1)$

2. $(-x^2 + 3x) - (5x + 2x^2)$

3. $(4k^2 + 8k + 2) - (2k + 3)$

4. $(2m^2 + 6m) + (m^2 - 5m + 7)$

5. $(5a^2 + 6a + 2) - (7a^2 - 7a + 5)$

6. $(-4p^2 - p + 9) + (p^2 + 3p - 1)$

7. $(x^3 - 3x + 1) - (x^3 + 7 - 12x)$

8. $(6x^2 - x + 1) - (-4 + 2x^2 + 8x)$

9. $(4y^2 + 2y - 8) - (7y^2 + 4 - y)$

10. $(w^2 - 4w - 1) + (-5 + 5w^2 - 3w)$

Determine whether each expression is a polynomial. If it is a polynomial, find the degree and determine whether it is a *monomial*, *binomial*, or *trinomial*.

11. $7a^2b + 3b^2 - a^2b$

12. $\frac{1}{5}y^3 + y^2 - 9$

13. $6g^2h^3k$

14. $\frac{x + 3x^4 - 21x^2}{x^3}$

Write each polynomial in standard form. Identify the leading coefficient and degree.

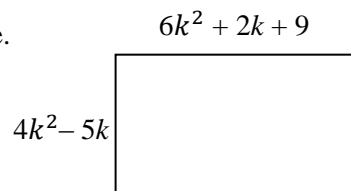
15. $8x^2 - 15 + 5x^5$

16. $10x - 7 + x^4 + 4x^3$

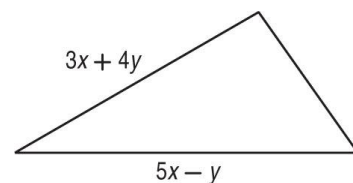
17. $13x^2 - 5 + 6x^3 - x$

18. $4x + 2x^5 - 6x^3 + 2$

19. **GEOMETRY** Find the perimeter of the square.



20. **GEOMETRY** The measures of two sides of a triangle are given. If P is the perimeter, and $P = 10x + 5y$, find the measure of the third side.



T8-2 Retake Worksheet

I can multiply polynomials using the distributive & double distributive method.

Simplify each expression using distribution.

1. $-2g(g^2 - 2g + 2)$

2. $3x(x^4 + x^3 + x^2)$

3. $-4x(2x^3 - 2x + 3)$

4. $-4ax(10 + 3x)$

5. $3y(-4x - 6x^3 - 2y)$

6. $2x^2y^2(3xy + 2y + 5x)$

7. $x(3x - 4) - 5x$

8. $-x(2x^2 - 4x) - 6x^2$

9. $6a(2a - b) + 2a(-4a + 5b)$

10. $4r(2r^2 - 3r + 5) + 6r(4r^2 + 2r + 8)$

Simplify the following expressions using double distribution.

11. $(3b + 3)(3b - 2)$

12. $(2m + 2)(3m - 3)$

13. $(4c + 1)(2c + 1)$

14. $(5a - 2)(2a - 3)$

15. $(4h - 2)(4h - 1)$

16. $(x - y)(2x - y)$

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17. $(w + 4)(w^2 + 3w - 6)$

18. $(t + 1)(t^2 + 2t + 4)$

19. $(k + 4)(k^2 + 3k - 6)$

20. $(m + 3)(m^2 + 3m + 5)$

Solve each equation.

21. $2(a - 3) = 3(-2a + 6)$

22. $3x(x - 5) - 3x^2 = -30$

23. $6(x^2 + 2x) = 2(3x^2 + 12)$

24. $3(x + 2) + 2(x + 1) = -5(x - 3)$

25. $4(3p^2 + 2p) - 12p^2 = 2(8p + 6)$

T8-3 Retake Worksheet

I can multiply polynomials using FOIL method.

Find each product using the FOIL method.

1. $(q + 6)(q + 5)$

2. $(x + 7)(x + 4)$

3. $(n - 4)(n - 6)$

4. $(a + 5)(a - 6)$

5. $(3g + 2)(3g - 2)$

6. $(2m - 3)(2m + 3)$

7. $(6 + u)^2$

8. $(r + t)^2$

9. $(3q + 1)(3q - 1)$

10. $(c - d)^2$

11. $(2k - 2)^2$

12. $(w + 3h)^2$

13. $(m + 5)(m^2 + 4m - 8)$

14. $(t + 3)(t^2 + 4t + 7)$

15. $(2h + 3)(2h^2 + 3h + 4)$

16. $(3d + 3)(2d^2 + 5d - 2)$

17. $(3n^2 + 2n - 1)(2n^2 + n + 9)$

18. $(2t^2 + t + 3)(4t^2 + 2t - 2)$

GEOMETRY Write an expression to represent the shaded area of each figure.

