

ALGEBRA

POLYNOMIAL FUNCTIONS REVIEW

Classify as a monomial, binomial, or trinomial. $-9x - 4$

Monomial

Binomial

Trinomial

$$-14x^2 - 14x + 19$$

Monomial

Binomial

Trinomial

Add.

1. $(14x + 15) + (10x + 14)$

2. $(8x + 10) + (11x + 10)$

3. $(14x^2 + 5x + 19) + (11x^2 + 18x + 17)$

Subtract.

4. $(7x + 7) - (11x + 13)$

5. $(11x + 17) - (14x + 18)$

6. $(7x^2 + 17x + 13) - (12x^2 + 10x + 4)$

Multiply.

7. $(6x)(11x + 9)$

8. $5x(4x + 1)$

9. $10x(11x^2 + 5x + 4)$

Use FOIL.

10. $(11x + 8)(2x + 5)$

11. $(7x + 7)(5x + 3)$

12. $(5x + 2)(11x + 7)$

Multiply.

13. $(5x^2 + 6x - 10)(8x - 3)$

14. $(9x^2 + 11x - 9)(12x - 5)$

15. $(-7x^7 - 12x^6 + 9)(6x^2 - 10x - 7)$

Divide.

16. $\frac{24x}{4x}$

17. $\frac{105x}{126x^2}$

18. $\frac{72x^2}{36x^4}$

Divide.

19. $(12x^4 + 28x^3 + 32x) \div 4x$

20. $(12x^4 + 3x^3 + 18x^2) \div 3x$

21. $(75x^4 + 70x^3 + 30x) \div (5x + 1)$

Add, Subtract, and Multiply.

22. $[(7x + 4)(-8x - 8)] + [(8x + 9)(5x + 6)]$

23. $[(11x)(10x + 11)] - [(16x + 14) - (10x + 16)]$

Factor out the GCF from each polynomial.

24. $-165x^3 + 198x$

25. $350x^3 - 400x^2 - 300x$

26. $-135x^6 + 108x^5 - 27x^4$

Write each polynomial as the product of two binomials.

27. $(x - 12)9 + x(x - 12)$

28. $x(x + 7) + 9(x + 7)$

29. $(x - 10)(-9) + 7x(x - 10)$