Algebra 1
Ch. 8 review

Quiz 8.8

Test Ch. 8 is Friday

8-5 Using the Distributive Property

Use the Distributive Property to factor each polynomial.

35. $12x + 24y$

$\frac{12x}{12} \quad \frac{24y}{12}$

$12(x + 2y)$

37. $8xy - 16x^3y + 10y$

$2y(4x - 8x^3 + 5)$

$8xy - 16x^3y + 10y$

( )·( ) = 0

Solve each equation. Check your solutions.

41. $x(3x - 6) = 0$

$x = 0$

$3x - 6 = 0$

$+6 \quad +6$

$\frac{3x}{3} = \frac{6}{3}$

$x = 2$

42. $6x^2 = 12x$

$-12x \quad -12x$

$\frac{6x^2}{6x} - \frac{12x}{6x} = 0$

$(6x)(x - 2) = 0$

$6x = 0$

$x = 0$

$x - 2 = 0$

$+2 \quad +2$

$x = 2$

43. $x^2 = 3x$

$-3x \quad -3x$

$\frac{x^2}{x} - \frac{3x}{x} = 0$

$(x)(x-3) = 0$

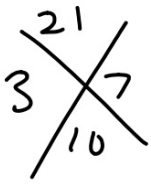
$x = 0 \quad x = 3$

Example 9

Factor $x^2 + 10x + 21$

1 21

3 7

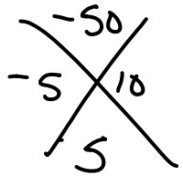


$(x+3)(x+7)$

Solve each equation. Check your solutions.

50. $x^2 + 5x - 50 = 0$

$(x-5)(x+10) = 0$



1 50
2 25
5 10

$x-5=0$ $\quad x+10=0$

$x=5$ $\quad x=-10$

Example 10

Factor $12a^2 + 17a + 6$

primo

Example 11

Solve $x^2 - 4 = 12$ by factoring.

$-12 \quad -12$

$x^2 - 16 = 0$

$(x+4)(x-4) = 0$

$x = -4 \quad x = 4$

8-1 Adding and Subtracting Polynomials

Write each polynomial in standard form.

11. $x + 2 + 3x^2$

12. $1 - x^4$

Find each sum or difference.

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

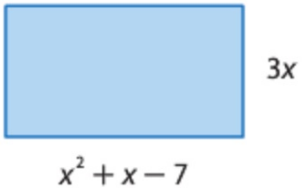
16. $a^2 + 5a - 3 - (2a^2 - 4a + 3)$

8-2 Multiplying a Polynomial by a Monomial

Solve each equation.

19. $x^2(x + 2) = x(x^2 + 2x + 1)$

22. **GEOMETRY** Find the area of the rectangle.



8-3 Multiplying Polynomials

Find each product.

23. $(x - 3)(x + 7)$

24. $(3a - 2)(6a + 5)$

27. PARKING LOT The parking lot shown is to be paved. What is the area to be paved?

31. $(2x - 3)(2x + 3)$

32. $(2r + 5t)^2$