

WAY COOL Algebra



Multiply.

1) $(-12)^2$

2) $(9x^3)^2$

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

4) $\left(x + \frac{1}{4}\right)^2$



Factor.

1) $4x^2 + 20x + 25$

2) $36x^2 - 12x + 1$

3) $x^2 - 16x + 64$

4) $x^2 - x + \frac{1}{4}$

Solve using Square Roots.

1) $(x + 7)^2 = 121$

2) $(x - 11)^2 = 169$

3) $(x - 4)^2 - 5 = 20$

4) $x^2 - 16x + 64 = 81$

Perfect Square Trinomials

If a Quadratic is in Standard Form:

$$Ax^2 + Bx + C$$

we can Complete the Square using this formula:

$$\left(\frac{B}{2}\right)^2$$

OR

$$(B \div 2)^2$$

Create a Perfect Square Trinomial.

1) $x^2 - 14x$

2) $x^2 + 20x$

3) $x^2 + 5x$

4) $x^2 - 9x$

5) $x^2 + \frac{2}{5}x$

6) $x^2 + \frac{3}{4}x$

Solve by Completing the Square.

1) $x^2 + 14x = -48$

2) $x^2 + 6x = 16$

3) $x^2 - 12x + 32 = 0$

4) $x^2 + 14x - 15 = 0$

5) $x^2 - 9x + 14 = 0$

