Algebra 1 8.8

Factor binomials that are the difference of squares

Use the difference of squares to solve equations

difference

factor

solve

zero product property

whiteboards

Easter Egg scavenger hunt

b. $7x^3 + 21x^2 - 7x - 21$

$\frac{7}{7} \quad \frac{21}{7} \quad \frac{7}{7} \quad \frac{21}{7}$

$7(x^3 + 3x^2 - x - 3)$

$x^2 \quad x^2 \quad -1 \quad -1$

$x^2(x+3) - 1(x+3)$

$7 \quad (x+3)(x^2 - 1)$

$x \quad 1$

$7(x+3)(x+1)(x-1)$

36. $2m^3 + m^2 - 50m - 25$

$m^2(2m+1) - 25(2m+1)$

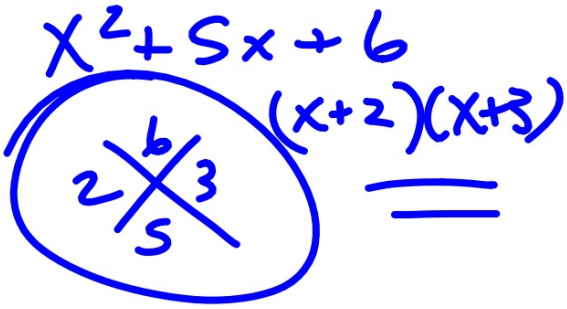
$(2m+1)(m^2-25)$

$(2m+1)(m+5)(m-5)$

3D. $r^3 + 6r^2 + 11r + 66$

What if it is an equation?

Scavenger hunt...



60

1 60
2 30
3 20
4 15
5 12
6 10

$15x^2-17x+4=0$

$(15x^2-5x)+(-12x+4)=0$

$5x \quad 5x \quad -4 \quad -4$

$5x(3x-1)-4(3x-1)$

$(3x-1)(5x-4)=0$

$x=\frac{1}{3} \qquad x=\frac{4}{5}$

$3x-1=0 \qquad 5x-4=0$

$+1 \quad +1 \qquad +4 \quad +4$

$\frac{3x}{3}=\frac{1}{3} \qquad \frac{5x}{5}=\frac{4}{5}$

Zero product property

GuidedPractice

4. Which are the solutions of $18x^3 = 50x$?

Standardized Test Example 4 Solve an Equation by Factoring

In the equation $y = x^2 - \frac{9}{16}$, which is a value of x when $y = 0$?