

November 15, 2016

$$x^2 - 36 = 9x$$

** always set one side equal to zero.*

$$x^2 - 9x - 36 = 0$$

$ac = -36$
 $b = -9$

12	-3
+	-
12	-3

$x(x-12) + 3(x-12) = 0$

$$(x-12)(x+3) = 0$$

① $x-12=0$
 $x=12$

② $x+3=0$
 $x=-3$

ok

$$(12)^2 - 9(12) - 36 = 0$$

$$144 - 108 - 36 = 0$$

$$36 - 36 = 0$$

$$0 = 0$$

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$$-11 = x^2 - 12x$$

$$0 = x^2 - 12x + 11$$

$$x^2 - 12x + 11 = 0$$

Don't do this!

$$-x^2 + 12x - 11 = 0$$

** Because now the "a" is negative.*

Nov 15-9:10 AM

$$-x^2 + 12x - 11$$

** Factor out a "-1"*

Positive

$$-(x^2 - 12x + 11)$$

$ac = 11$
 $b = -12$

11	-1
+	-
11	-1

$$-(x-11)(x-1)$$

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Sum of Two Cubes

$$a^3 + b^3 = (a+b)(a^2 - ab + b^2)$$

Difference of Two Cubes

$$a^3 - b^3 = (a-b)(a^2 + ab + b^2)$$

$27 - 64y$ \leftarrow *Is this a Diff. of Cubes?*

$a = 3$ $b = 4y$

$$(3-4y)(9 + 12y + 16y^2)$$

Nov 15-9:16 AM

Special Forms

① *Difference of Two Squares*

$$a^2 - b^2 = (a+b)(a-b)$$

② *Sum or Difference of Two Cubes*

$$a^3 \pm b^3 = (a \pm b)(a^2 \mp ab + b^2)$$

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Do 6.5

#9 - #27 odd

#37 - #79 odd

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