

April 6, 2016

6.2 #33) $7x + 2 = 4x + 7$

$$3x = 5$$

$$x = \frac{5}{3}$$

$$7\left(\frac{5}{3}\right) + 2 = 4\left(\frac{5}{3}\right) + 7$$

$$\frac{35}{3} + \frac{2}{1} = \frac{20}{3} + \frac{7}{1}$$

$$\frac{35 + 6}{3} = \frac{20 + 21}{3}$$

$$\frac{41}{3} = \frac{41}{3} \checkmark$$

Apr 6-9:53 AM

#1) $(9x+2)(8x+3) = 0$

a · b · c = 0

① $9x + 2 = 0$

$$9x = -2$$

$$x = -\frac{2}{9}$$

② $8x + 3 = 0$

$$8x = -3$$

$$x = -\frac{3}{8}$$

Apr 6-10:07 AM

#2) $x(4x+7)(9x-8) = 0$

a · b · c = 0

① $x = 0$

② $4x + 7 = 0$

$$4x = -7$$

$$x = -\frac{7}{4}$$

③ $9x - 8 = 0$

$$9x = 8$$

$$x = \frac{8}{9}$$

Apr 6-10:09 AM

#6) $4x(3x-6) = 0$

① $\frac{4x}{4} = \frac{0}{4}$

$$x = 0$$

② $3x - 6 = 0$

$$3x = 6$$

$$x = \frac{6}{3} = 2$$

Apr 6-10:12 AM

#21) $9x^2 = -x$

$$9x^2 + x = 0$$

$$x(9x+1) = 0 \quad \frac{x}{x} = 1$$

① $x = 0$

② $9x + 1 = 0$

$$9x = -1$$

$$x = -\frac{1}{9}$$

Apr 6-10:13 AM

#46) $(12x^2 - 10x) + (54x - 45) = 0$

$MCx = 2x$ $MCx = 9$

$$2x(6x-5) + 9(6x-5) = 0$$

MCx

$$(6x-5)(2x+9) = 0$$

① $6x - 5 = 0$

$$6x = 5$$

$$x = \frac{5}{6}$$

② $2x + 9 = 0$

$$2x = -9$$

$$x = -\frac{9}{2}$$

Apr 6-10:15 AM

$x^2 + 10x - 24 = 0$
 $ac = 1 \cdot (-24) = -24$
 $b = +10$

+	-	-24	10
4	6	✓	✗
6	4	✓	✗
12	2	✓	✓

$x^2 + 12x - 2x - 24 = 0$
 $x(x+12) - 2(x+12) = 0$
 $(x+12)(x-2) = 0$

① $x + 12 = 0$
 $x = -12$

② $x - 2 = 0$
 $x = 2$

ck
 $x = -12$ $x^2 + 10x - 24 = 0$
 $(-12)^2 + 10(-12) - 24 = 0$
 $144 - 120 - 24 = 0$
 $24 - 24 = 0$
 $0 = 0$

$x = 2$
 $(2)^2 + 10(2) - 24 = 0$
 $4 + 20 - 24 = 0$
 $24 - 24 = 0$
 $0 = 0$

Apr 6-10:20 AM

$x^2 - 9x - 36 = 0$
 $ac = 1 \cdot (-36) = -36$
 $b = -9$

-	+
12	3

$x^2 - 12x + 3x - 36 = 0$
 $x(x-12) + 3(x-12) = 0$
 $(x-12)(x+3) = 0$

① $x = 12$
 ② $x = -3$

Apr 6-10:31 AM

Sign Patterns
 of
 $ax^2 + bx + c$, where a is positive

① $ax^2 + bx + c$; Both numbers have same sign. Both positive
 $x^2 + 7x + 12$

② $ax^2 - bx + c$; Same sign, both neg.
 $x^2 - 7x + 12$

③ $ax^2 + bx - c$; opposite signs; larger number is pos.
 $x^2 + x - 12$

④ $ax^2 - bx - c$; opposite signs; larger number is neg.

Apr 6-10:39 AM

Read & Do examples 6.3

Apr 6-10:52 AM