

December 5, 2016

Exam #3

#10) $x^2 + 2x = 35$
 $x^2 + 2x - 35 = 0$
 $x^2 + 7x - 5x - 35 = 0$ $ac = -35$
 $x(x+7) - 5(x+7) = 0$ $b = +2$

+	-
7	5

$(x+7)(x-5) = 0$

① $x+7 = 0$
 $x = -7$

② $x-5 = 0$
 $x = 5$

Dec 5-9:06 AM

$7w(2w-3) - 8(2w-3)$
 $(2w-3)(7w-8)$

Dec 5-9:12 AM

#3) $(-x-4)(-2x^2+x-1)$
 $2x^3 - x^2 + x + 8x^2 - 4x + 4$
 $2x^3 + 7x^2 - 3x + 4$

Dec 5-9:15 AM

$(5x+3)^2 = (5x+3)(5x+3)$
 $= 25x^2 + 30x + 9$

Dec 5-9:17 AM

#13) $\frac{b^4}{c^4} \div \frac{9b^2}{c^2}$
 $\frac{b^4}{c^4} \cdot \frac{c^2}{9b^2} = \frac{b^2}{9c^2}$

Dec 5-9:19 AM

* Final Exam
 Friday, December 16th
 @ 8:00 am!
 in 320
 * It covers everything

Dec 5-9:22 AM

7.4 Solving Rational Equations

$\frac{1}{2}x + \frac{1}{3} = \frac{1}{4}$; for x

Goal: $x = \text{stuff}$

① Find & Distribute the LCD through the equation to clear the fractions.

$\frac{1}{2}(\frac{1}{2}x + \frac{1}{3} = \frac{1}{4})$

$\frac{1}{1} \cdot \frac{1}{2}x + \frac{1}{1} \cdot \frac{1}{3} = \frac{1}{1} \cdot \frac{1}{4}$

$6x + 4 = 3$

$6x = -1$

$x = -\frac{1}{6}$

$\frac{1}{2}(-\frac{1}{6}) + \frac{1}{3} = \frac{1}{4}$

$-\frac{1}{12} + \frac{1}{3} = \frac{1}{4}$

$\frac{-1+4}{12} = \frac{1}{4}$

$\frac{3}{12} = \frac{1}{4}$

$\frac{1}{4} = \frac{1}{4} \checkmark$

Dec 5-9:29 AM

$$6 - \frac{22}{x^2} = \frac{29}{x}$$

Dec 5-9:45 AM

$x^2(1 - \frac{2}{x} = \frac{3}{x^2})$ LCD: x^2

$x^2 \cdot 1 - x^2 \cdot \frac{2}{x} = x^2 \cdot \frac{3}{x^2}$

$x^2 - 2x = 3$

$x^2 - 2x - 3 = 0$ factor!

$x^2 - 3x + x - 3 = 0$ $ac = -3$ $b = -2$

$x(x-3) + 1(x-3) = 0$ $\frac{-1}{3}$

$(x-3)(x+1) = 0$

① $x = 3$

② $x = -1$

$1 - \frac{2}{3} = \frac{3}{(3)^2}$

$1 - \frac{2}{3} = \frac{3}{9}$

$\frac{3-2}{3} = \frac{1}{3}$

$\frac{1}{3} = \frac{1}{3} \checkmark$

Dec 5-9:38 AM