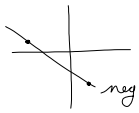


November 2, 2015

#1)  $\frac{(-\frac{7}{1}) - (-\frac{1}{2})}{(\frac{3}{4}) - (-\frac{5}{1})} = \frac{-14 - 1}{3 + 20}$

$\frac{3}{4} + \frac{5}{1} = \frac{-13}{4}$

$\frac{-13}{4} \cdot \frac{2}{2} = -\frac{26}{8} = -\frac{13}{4}$



Nov 2-9:56 AM

#2)  $3x - 19y = 71$

$m = \frac{3}{19}$

$y - (-2) = \frac{3}{19}(x - 11)$

$19y + 38 = 3x - 33$

$3x + 19y = -71$

$3x - 19y = 71$

Nov 2-10:04 AM

$(7, -3)$   $5x + 3y = 4$

$m = ?$

$y = -\frac{5}{3}x + \frac{4}{3}$

Nov 2-10:07 AM

$f(x) = 5x^2 - x$   $\frac{f(x+h) - f(x)}{h}$

$\frac{5(x+h)^2 - (x+h) - (5x^2 - x)}{h}$

$\frac{5(x^2 + 2xh + h^2) - x - h - 5x^2 + x}{h}$

$\frac{5x^2 + 10xh + 5h^2 - x - h - 5x^2 + x}{h}$

$\frac{10xh + 5h^2 - h}{h}$

$\frac{h(10x + 5h - 1)}{h}$

$10x + 5h - 1$

Nov 2-10:11 AM

$g(m) = 2m + 5$   $h(m) = -m^2 + 3$

$(g \circ h)(m) = g(h(m))$

$= 2(-m^2 + 3) + 5$

$= -2m^2 + 10 + 5$

$= -2m^2 + 15$

Nov 2-10:16 AM

$\frac{i^{13}}{i^{27}} = i^{13-27} = i^{-14}$

$i^{-14} = \frac{1}{i^{14}}$

$i^2 = -1$

$\frac{1}{(i^2)^7} = \frac{1}{(-1)^7} = \frac{1}{-1} = -1$

$\frac{i^{13}}{i^{27}} = \frac{(i^4)^3 \cdot i^1}{(i^4)^6 \cdot i^3} = \frac{1 \cdot i}{1 \cdot i^3} = \frac{i}{i^3} = \frac{1}{i^2} = \frac{1}{-1} = -1$

Nov 2-10:20 AM

10.1  
 $(x+3)^2 - 7 = 0$   
 \* Note: Before using Square Root Property, isolate squared term.  
 $\sqrt{(x+3)^2} = \pm\sqrt{7}$   
 $x+3 = \pm\sqrt{7}$   
 $x = \pm\sqrt{7} - 3$

Nov 2-10:28 AM

10.2 *Completing the Square*  
 $(x+4)^2 = (x+4)(x+4) = x^2 + 8x + 16$   
 $L = 16$   
 $0 + 16 = 8x$   
 $16 = 4 \cdot 4$   
 $8 = 4 + 4$   
 Perfect Square Trinomial (PST)

Nov 2-10:36 AM

$(x-3)^2 = (x-3)(x-3) = x^2 - 6x + 9$  (PST)  
 $(x + \frac{3}{4})^2 = (x + \frac{3}{4})(x + \frac{3}{4}) = x^2 + \frac{3}{2}x + \frac{9}{16}$   
 $(x - \frac{5}{6})^2 = (x - \frac{5}{6})(x - \frac{5}{6}) = x^2 - \frac{5}{3}x + \frac{25}{36}$

Nov 2-10:41 AM

$x^2 - 6x + 2 = 0$   
 ① Always set equal to 0 prior to solving  
 ② Make the coefficient of  $x^2$  a "one"  
 ③ Isolate  $x^2$  &  $x$  on one side.  
 $x^2 - 6x = -2$   
 ④  $-6 \cdot \frac{1}{2} = -3 = \boxed{-3}$   
 ⑤  $(-3)^2 = 9$  add to both sides  
 $x^2 - 6x + 9 = -2 + 9$  (PST)

Nov 2-10:44 AM