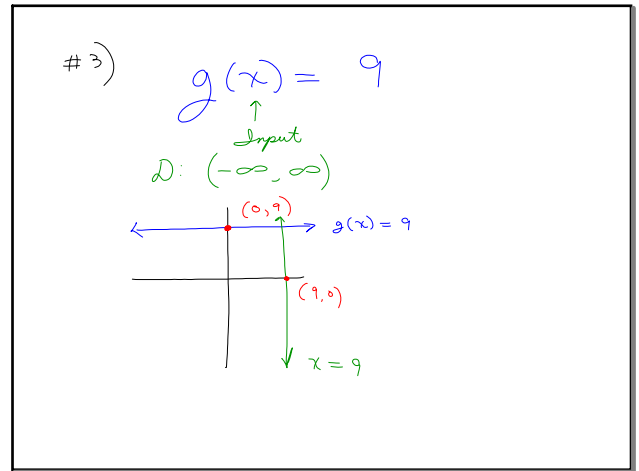
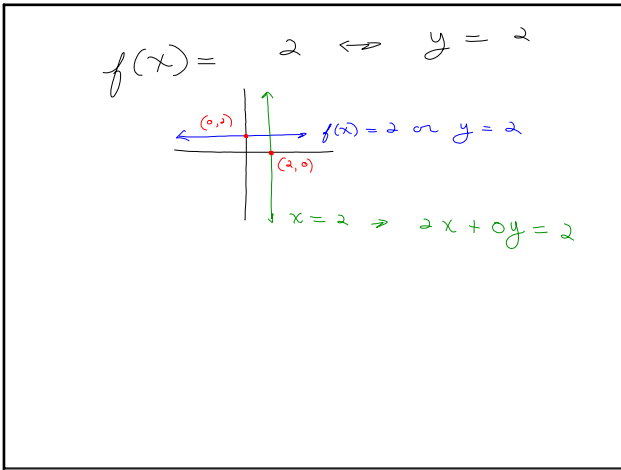


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 * Exam #1 - Friday

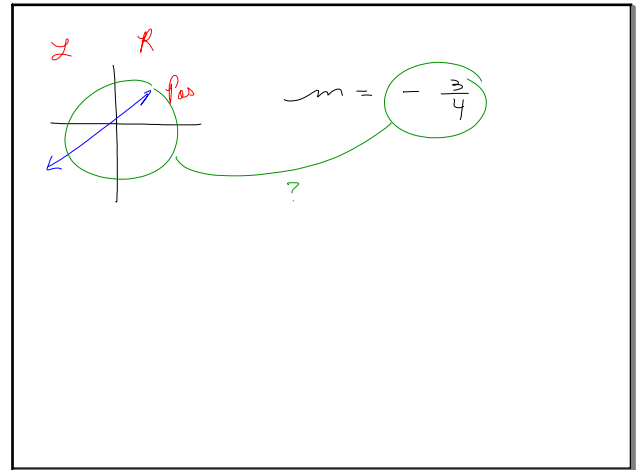
Feb 16-9:49 AM



Feb 16-9:58 AM



Feb 16-10:04 AM



Feb 16-10:09 AM

Forms of a Linear Function

- ① S.F.: $ax + by = c$
- ② S.D.: $y = mx + b$
- ③ Point-Slope: $y - y_1 = m(x - x_1)$

Feb 16-10:13 AM

$(-8, 7); m = -\frac{3}{5}$

Find equation in S.F.

$$y - \boxed{y_1} = \boxed{m}(x - \boxed{x_1})$$

$$y - 7 = -\frac{3}{5}(x - (-8))$$

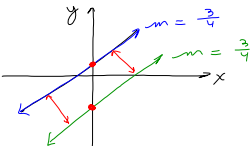
$$y - 7 = -\frac{3}{5}(x + 8)$$

$$5y - 35 = -3(x + 8)$$

$$5y - 35 = -3x - 24$$

$$3x + 5y = 11$$

Feb 16-10:16 AM

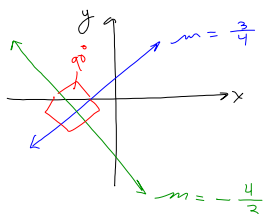


* Parallel Lines

- ① Have same slopes
- ② Different y-intercepts
or "b"

a.) $y = -\frac{5}{7}x + 4$
 $y = -\frac{5}{7}x - 1$

Feb 16-10:27 AM



Perpendicular Lines

Test: $\frac{3}{4} \cdot -\frac{4}{3} = \frac{-12}{12} = -1$

$\frac{m_1}{1} \cdot \frac{1}{m_2} = -1$

Means we have Perp lines

Feb 16-10:33 AM

Given: $y = \frac{6}{11}x - 2$

Perp slope: $-\frac{11}{6}$

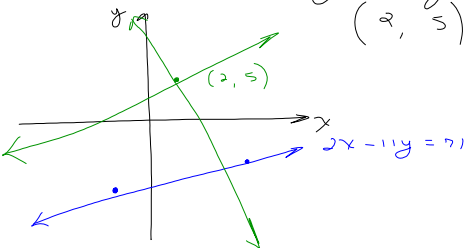
Test: $\frac{6}{11} \cdot -\frac{11}{6} = -\frac{66}{66} = -1$

Feb 16-10:38 AM

$(-3, -7) \neq (8, -5)$

$2x - 11y = 71$

Find the parallel & perpendicular equations passing through $(2, 5)$



Feb 16-10:39 AM

Given slope: $\frac{2}{11}$

Parallel slope: $\frac{2}{11}$

Perp. slope: $-\frac{11}{2}$

Parallel: $(2, 5)$

" $(y - 5 = \frac{2}{11}(x - 2))$

$11y - 55 = 2(x - 2)$

$11y - 55 = 2x - 4$

⊖ $(-2x + 11y = 51)$

$2x - 11y = -51$

Perp $(2, 5); m = -\frac{11}{2}$

$y - 5 = -\frac{11}{2}(x - 2)$

$2y - 10 = -11(x - 2)$

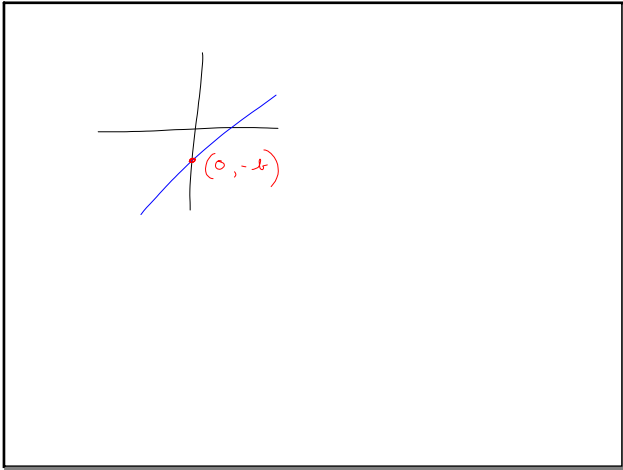
$= -11x + 22$

$11x + 2y = 32$

Feb 16-10:44 AM

Do 3.4 up to word problems

Feb 16-10:50 AM



Feb 16-10:56 AM