Trig 7.7

Find the distance from a point to a line
Find the distance between 2 parallel lines

slope

y-intercept

parallel lines

distance

whiteboards

*Geom Ch. 3

Quiz 7.5 & 7.7 Tues?

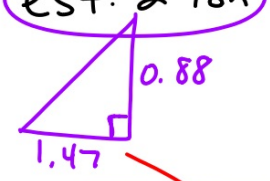
(3,5)

$5x - 3y + 10 = 0$

$\frac{-3y}{-3} = \frac{-5x}{-3} - \frac{10}{-3}$

$y = \frac{5}{3}x + 3\frac{1}{3}$

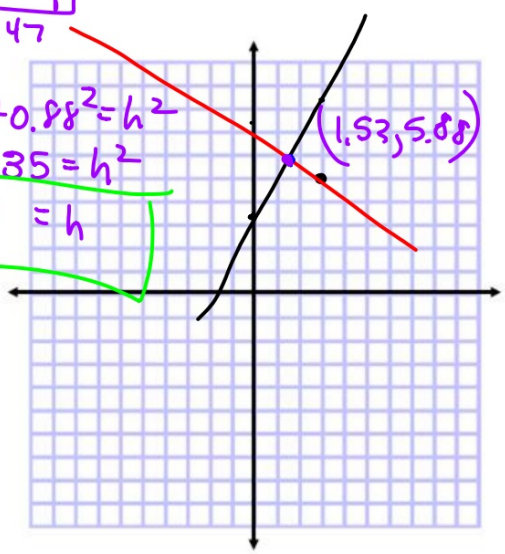
est. 2-ish



$1.47^2 + 0.88^2 = h^2$

$2.985 = h^2$

$1.7 = h$



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

$5 = -\frac{3}{5} \cdot 3 + B$

$5 = -\frac{9}{5} + B$

$6.8 = B$

$y = -\frac{3}{5}x + 6.8$

$\frac{5}{3}x + 3\frac{1}{3} = -\frac{3}{5}x + 6.8$

$2.27x = 3.47$

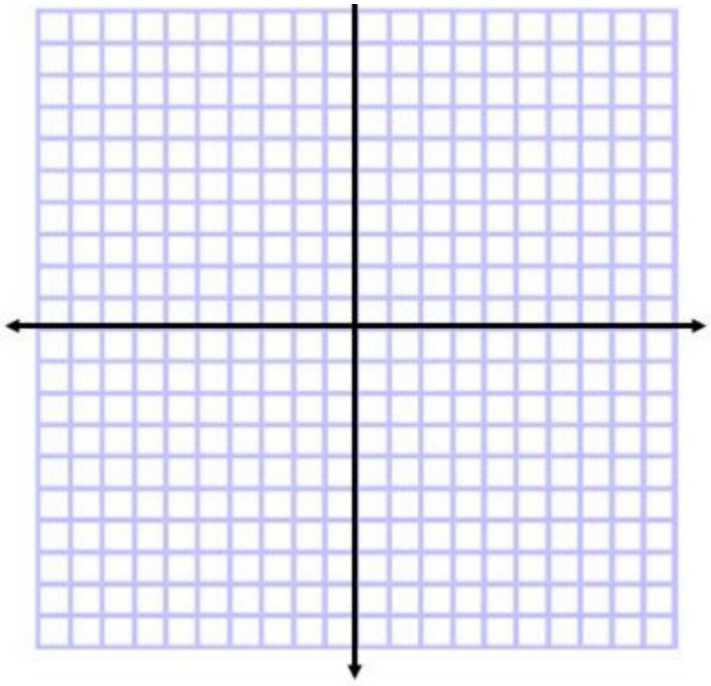
$x = 1.53$

$y = -\frac{3}{5} \cdot 1.53 + 6.8$

$y = 5.88$

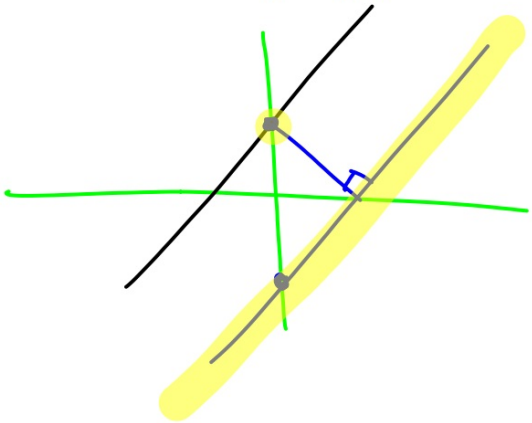
(1.5, 5.9)

Plan: Use the pythagorean theorem
What do I need to know?



1 Find the distance between $P(4, 5)$ and the line with equation $8x + 5y = 20$.

Tell me everything you know about parallel lines...



Find the distance between the parallel lines with the given equations.

7. $3x - 5y = 1$
$3x - 5y = -3$

$\frac{-5y}{-5} = \frac{-3x}{-5} + \frac{1}{-5}$

$y = \frac{3}{5}x - \frac{1}{5}$

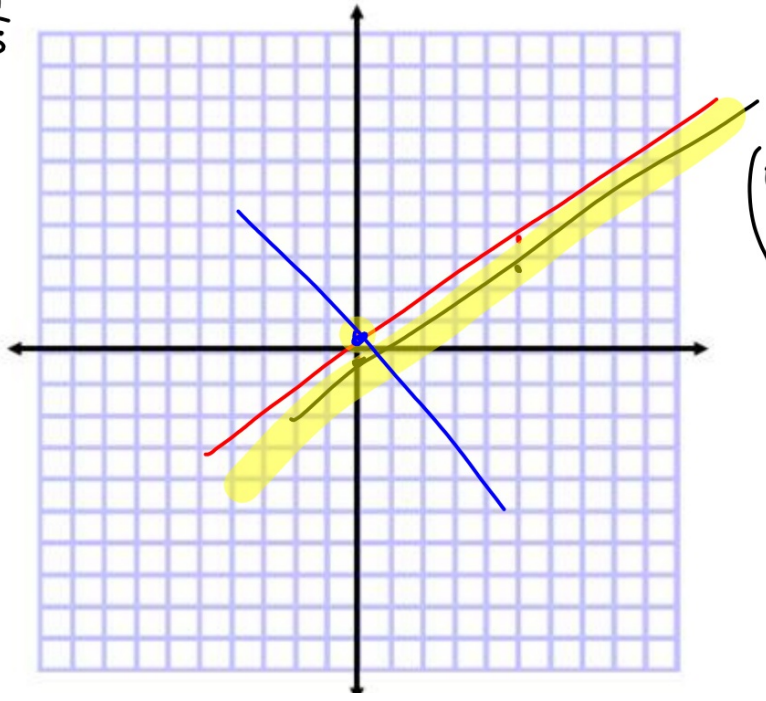
$\frac{-5y}{-5} = \frac{-3x}{-5} - \frac{3}{-5}$

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

8. $y = -\frac{1}{3}x + 3$
$y = -\frac{1}{3}x - 7$

olve both for y
hoose 1 eq (line)
hoose y-int of other one

esterday problem...



$(0, \frac{3}{5})$

$y = \frac{3}{5}x - \frac{1}{5}$

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