

### Geometry 3.6

Find the distance between a point and a line

Find the distance between parallel lines

pythagorean theorem

hypotenuse

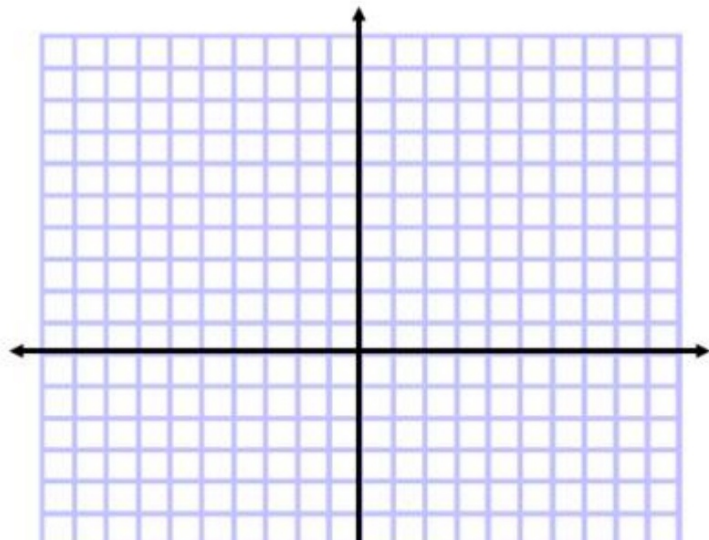
distance

parallel

perpendicular

equidistant

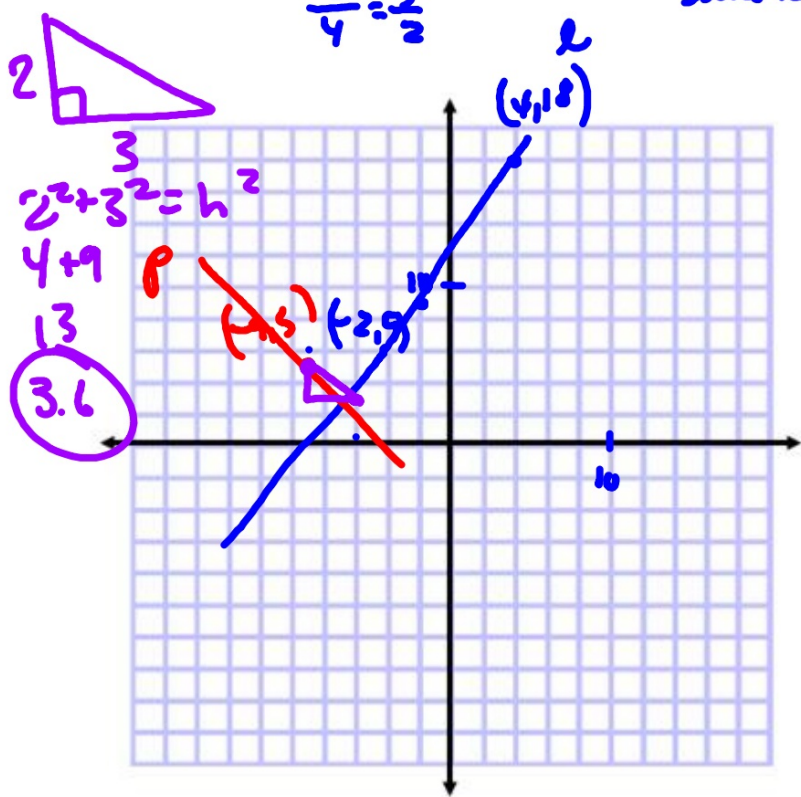
Poetry project



# Whiteboards

4-ish

6. Line  $\ell$  contains points  $(4, 18)$  and  $(-2, 9)$ . Point  $P$  has coordinates  $(-9, 5)$ .



line  $\ell$   $m = \frac{9}{6} = \frac{3}{2}$

$$y = \frac{3}{2}x + B$$

$$18 = \frac{3}{2} \cdot 4 + B$$

$$18 = 6 + B$$

$$12 = B$$

$\ell$   
 $y = \frac{3}{2}x + 12$

$P$   
 $y = -\frac{2}{3}x - 1$

line  $P$   $m = -\frac{2}{3}$

$$y = -\frac{2}{3}x + B$$

$$5 = -\frac{2}{3} \cdot 9 + B$$

$$5 = -6 + B$$

$$11 = B$$

Find the distance between:

$$y=2x + 6$$

$$y= 2x -3$$

