

BE - Geometry I | Wednesday

10-5-11

① Find the distance between
(0, -3) AND (1, 0)

$$d^2 = \underbrace{(y_2 - y_1)^2}_{\text{rise}} + (x_2 - x_1)^2$$

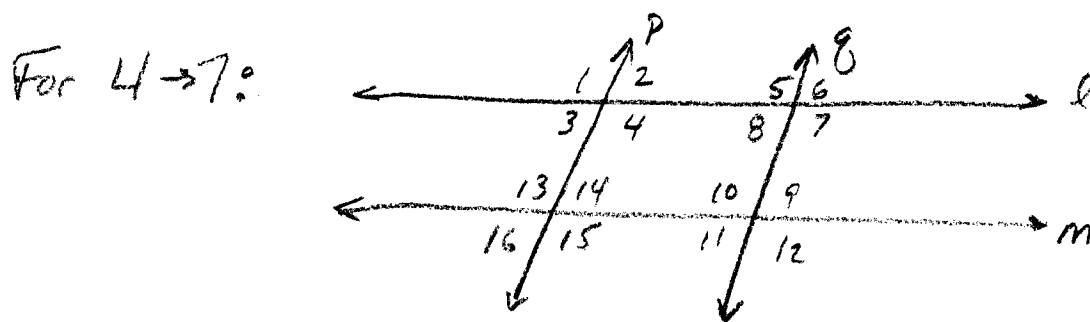
$$d^2 = (0 + 3)^2 + (1 - 0)^2$$

$$d^2 = 9 + 1$$

$$d^2 = 10$$

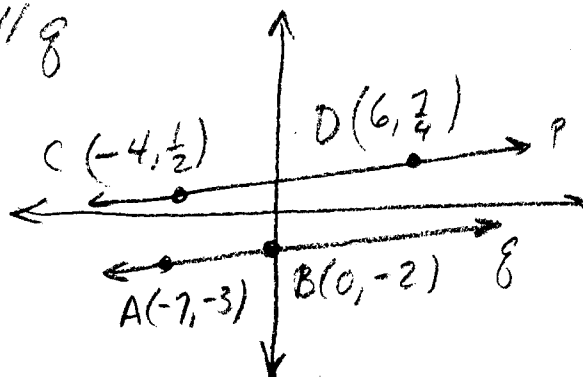
$$\boxed{d = \sqrt{10}} \sim 3.16$$

Homework Review - Pg 154-156 #4-7, 11, 38, 39



- ④ $\angle 16 \cong \angle 3$ Corr. $\angle s \cong$
- ⑤ $\angle 4 \cong \angle 13$ ALT. int $\angle s \cong$
- ⑥ $m\angle 14 + m\angle 10 = 180$ Consec. int $\angle s$ supp.
- ⑦ $\angle 1 \cong \angle 7$ ALT EXT. $\angle s \cong$

11. Is $p \parallel q$



$$\text{Slope of } \overleftrightarrow{p} \Rightarrow \frac{\frac{7}{4} - \frac{1}{2}}{6 - (-4)} = \frac{\frac{5}{4}}{10} = \frac{5}{40} = \frac{1}{8}$$

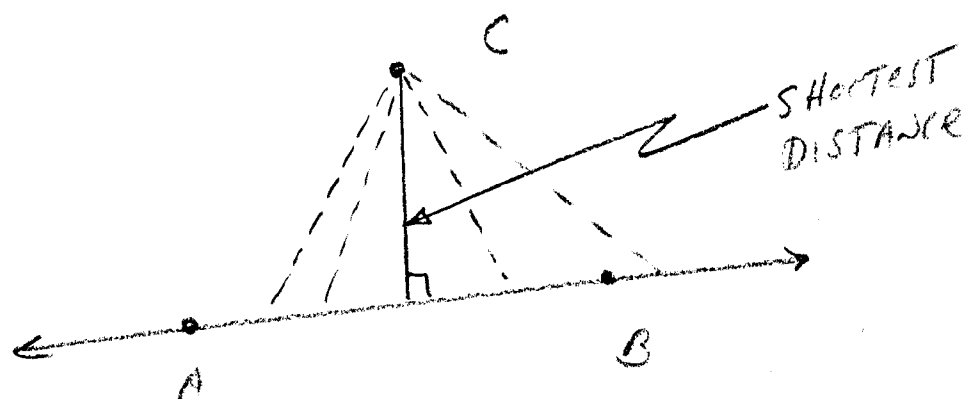
$$\text{Slope of } \overleftrightarrow{q} \Rightarrow \frac{-2 - (-3)}{0 - (-7)} = \frac{1}{7} \quad \left[\frac{1}{8} \neq \frac{1}{7} \therefore \text{NOT PARALLEL} \right]$$

$$\textcircled{38} \quad \left. \begin{array}{l} m \text{ of } \overleftrightarrow{AB} \Rightarrow \frac{2}{8} = \frac{1}{4} \\ m \text{ of } \overleftrightarrow{CD} \Rightarrow \frac{1}{4} \end{array} \right\} \therefore \frac{1}{4} = \frac{1}{4} \therefore \text{lines parallel}$$

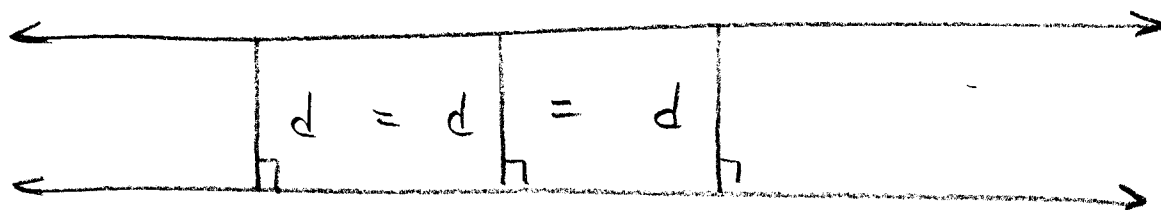
$$\textcircled{39} \quad \left. \begin{array}{l} m \text{ of } \overleftrightarrow{CD} \Rightarrow \frac{-1.3}{1.5} = -\frac{1}{5} \\ m \text{ of } \overleftrightarrow{AB} \Rightarrow \frac{-0.5}{3} = -\frac{1}{6} \end{array} \right\} \left[\frac{1}{5} \neq -\frac{1}{6} \therefore \text{NOT } \parallel \right]$$

Ch 3-6 Perpendiculars AND Distance

Distance Between A Point AND A LINE



The distance from a line to a point not on the line is the length of the segment perpendicular to the line from the point.



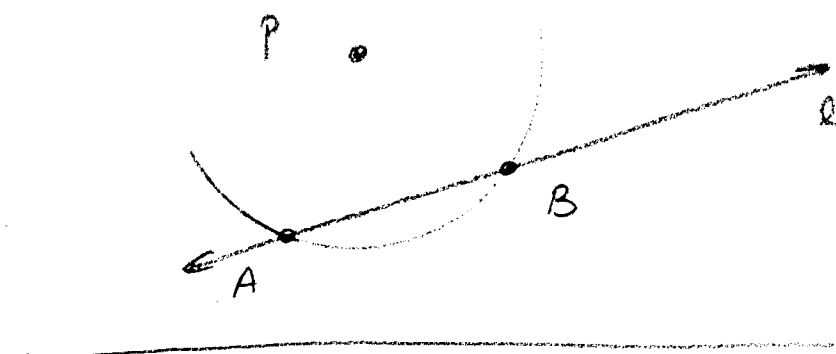
The distance between parallel lines is constant (the same).

CONSTRUCT A PERPENDICULAR SEGMENT

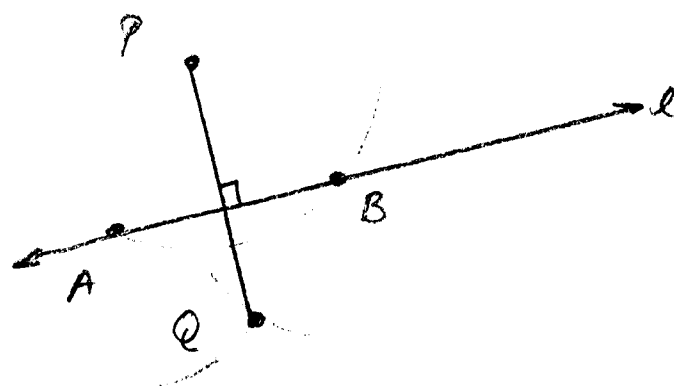
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Given line l
and point P



Draw an arc
from P big
enough to cross
 l in 2 places,
label A, B



Put point at
 A and draw arc
below l , any
compass width
 $> \frac{1}{2} \overline{AB}$

Use same settings,
put point at B ,
draw intersecting
arc. Label Q

Draw $\overline{PQ}$