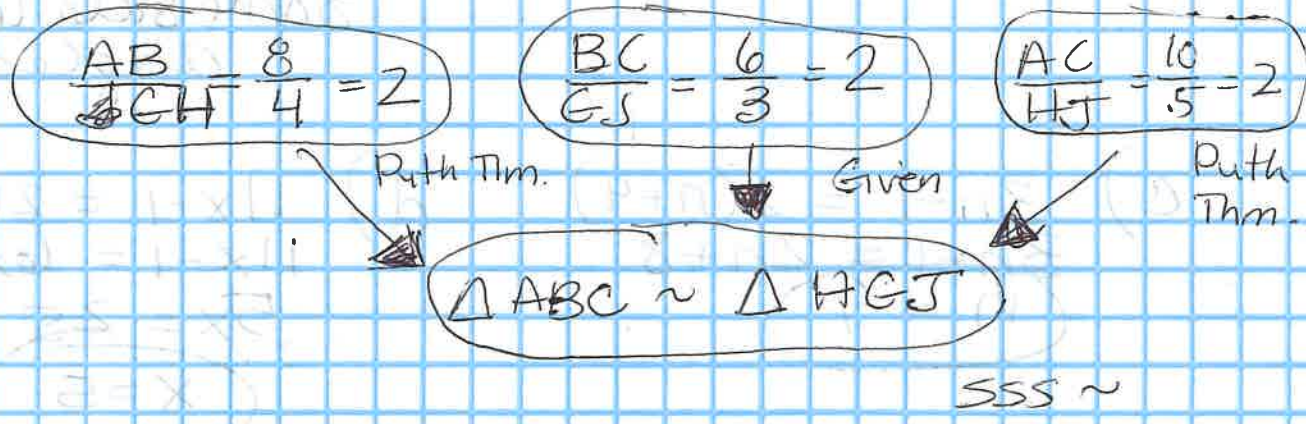


homework 7-15 to 7-20

7-15

$AB = 8$ and $JH = 5$
by using Pythagorean Theorem



7-16

$$56 = \frac{1}{2} \cdot h (10 + b)$$

$$56 = 8h$$

$$7 \text{ cm} = h$$

7-17

line L $\Rightarrow y = -\frac{1}{6}x + 6$

$$6x - y = 7$$

$$6x - 7 = y$$

$$m = 6 \Rightarrow -\frac{1}{6}$$

$$(0, 6)$$

$(6, 5)$
intersection

set equal others
6x + 0 = 6x + 0

$$-\frac{1}{6}x + 6 = \frac{2}{3}x + 1$$

$$-1x + 36 = 4x + 6$$

$$30 = 5x$$

$$6 = x$$

$$y = 5$$

line M $\Rightarrow y = \frac{2}{3}x + 1$

$$m = \frac{2}{3} \quad (-3, -1)$$

$$-1 = \frac{2}{3}(-3) + b$$

$$-1 = -2 + b$$

$$1 = b$$

7-18

$$\begin{aligned} a) \quad 3m &= 5m - 28 \\ 28 &= 2m \\ 14 &= m \end{aligned}$$

$$\begin{aligned} b) \quad 3x + 38 + 7x - 8 &= 180^\circ \\ 10x &= 150 \\ x &= 15 \end{aligned}$$

Same side interior angles

$$\begin{aligned} c) \quad 3n - 1 &= 2(n + 4) \\ 3n - 1 &= 2n + 8 \\ n &= 9 \end{aligned}$$

$$\begin{aligned} d) \quad 11x - 1 &= 2(3x + 12) \\ 11x - 1 &= 6x + 24 \\ 5x &= 25 \\ x &= 5 \end{aligned}$$

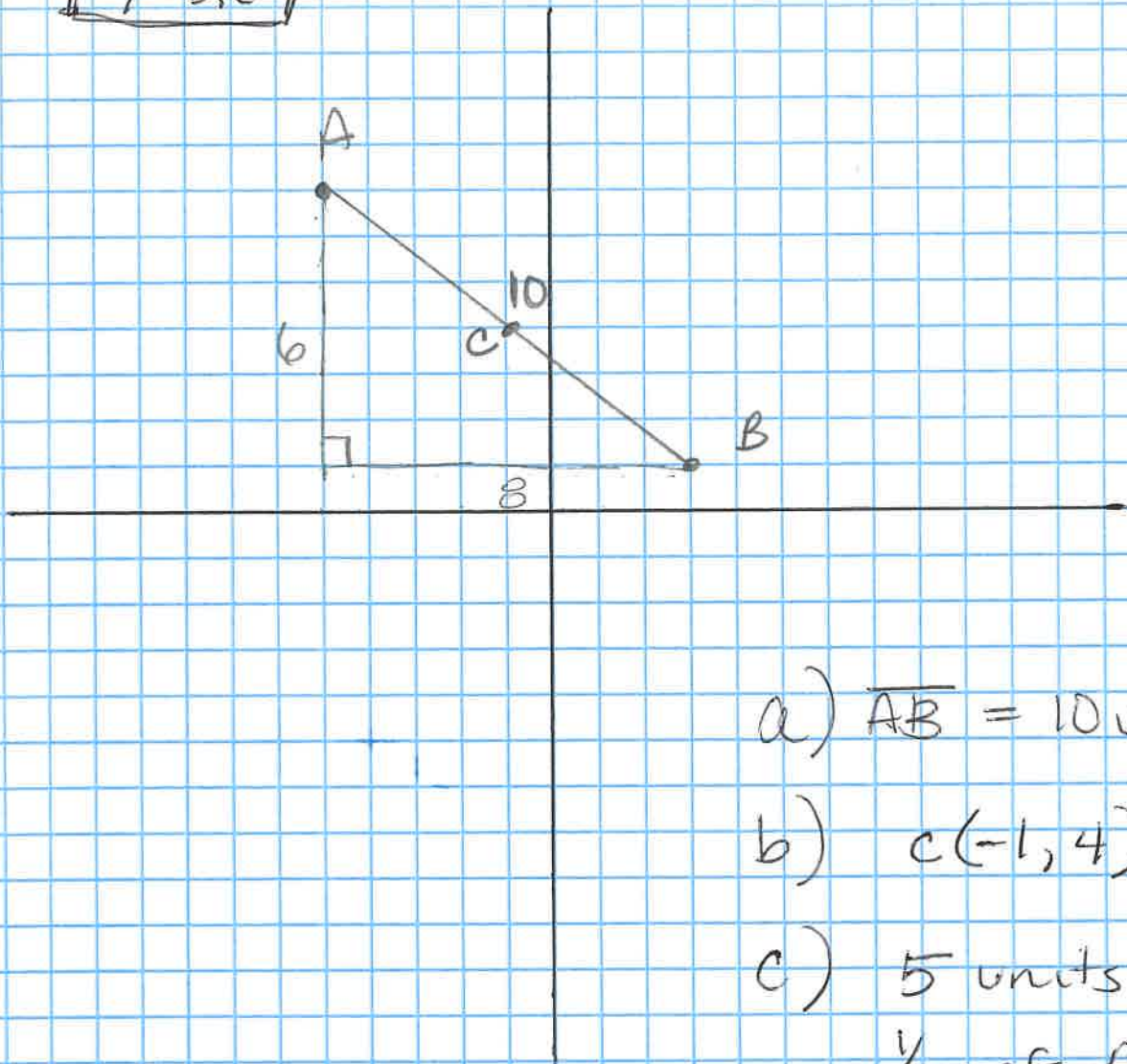
7-19



132-1

$\sum_{i=1}^n a_i = S_n$
 $(1-x)^{-1} = \sum_{i=0}^{\infty} x^i$
 $\sum_{i=1}^{\infty} x^i = \frac{x}{1-x}$
 $\sum_{i=1}^{\infty} i x^{i-1} = \frac{1}{(1-x)^2}$

7-20



a) $\overline{AB} = 10$ units

b) $c(-1, 4)$

c) 5 units
 $\frac{1}{2}$ of \overline{AB}