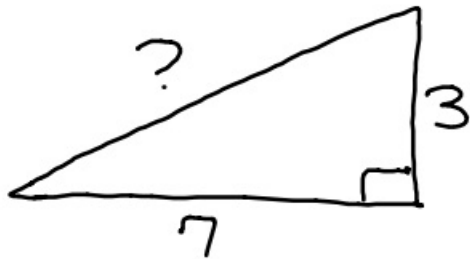


8-24-17 5th Geo

①



$$\text{leg}^2 + \text{leg}^2 = \text{hyp}^2$$

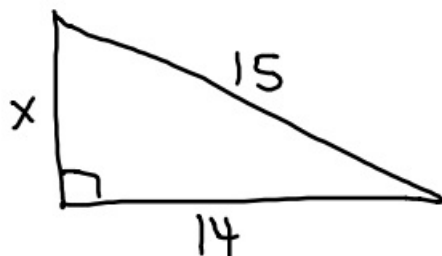
$$7^2 + 3^2 = c^2$$

$$49 + 9 = c^2$$

$$\sqrt{58} = c$$

$$7.6 \approx c$$

②



$$\text{leg}^2 + \text{leg}^2 = \text{hyp}^2$$

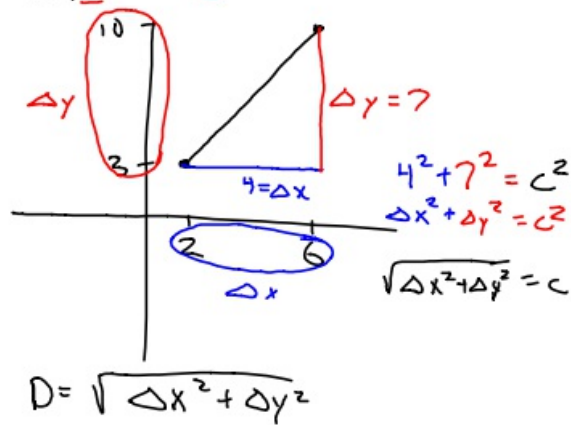
$$14^2 + x^2 = 15^2$$

$$\begin{array}{r} 196 + x^2 = 225 \\ -196 \quad -196 \\ \hline \end{array}$$

$$\sqrt{x^2} = \sqrt{29}$$

$$x \approx 5.4$$

(2, 3) (6, 10)



③ Find the distance from
(2, 8) to (5, 17).

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$D = \sqrt{3^2 + 9^2}$$

$$D = \sqrt{9 + 81}$$

$$D = \sqrt{90}$$

$$D \approx 9.5$$

④ (-2, 6) (3, 10)

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{5^2 + 4^2}$$

$$= \sqrt{25 + 16}$$

$$= \sqrt{41}$$

$$\approx 6.4$$

⑤ (2, 4) (6, 14)

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$D = \sqrt{4^2 + 10^2}$$

$$D = \sqrt{16 + 100}$$

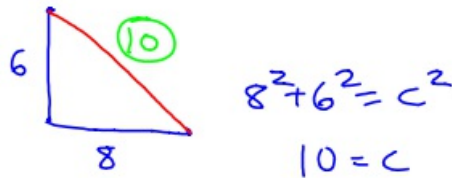
$$D = \sqrt{116}$$

$$D \approx 10.8$$

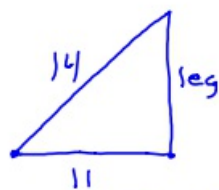
$$\textcircled{6} \quad (-4, 7)(-6, -1)$$

$$\begin{aligned} D &= \sqrt{\Delta x^2 + \Delta y^2} \\ \frac{-4 - (-6)}{2} &= \sqrt{2^2 + 8^2} \\ &= \sqrt{4 + 64} \\ &= \sqrt{68} \\ &\approx 8.2 \end{aligned}$$

- $\textcircled{7}$ I start walking due West for 8 miles. I then turn due North and walk 6 miles. How far from my starting point am I?

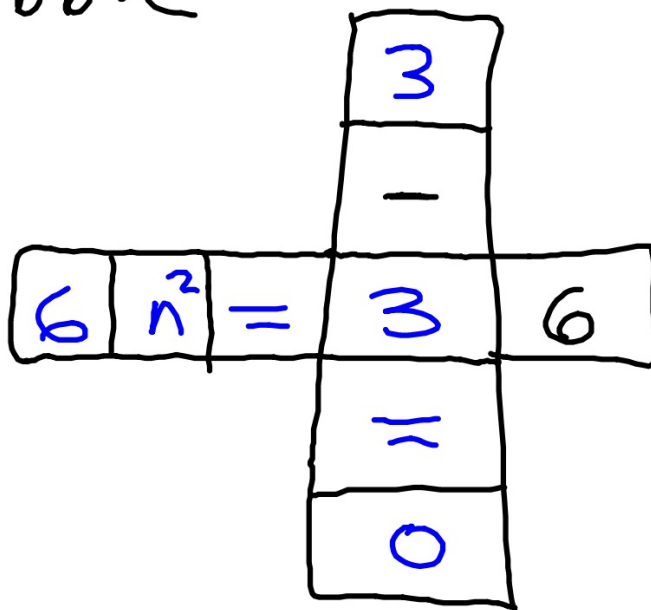


- $\textcircled{8}$ I walk 11 miles due East and then turn due North and walk for 8 hours. If I am 14 miles away from my starting point, how far North did I walk?



$$\begin{aligned} \text{leg}^2 + 11^2 &= 14^2 \\ a^2 + 121 &= 196 \\ \underline{-121 \quad -121} & \\ \sqrt{a^2} &= \sqrt{75} \\ a &\approx 8.7 \end{aligned}$$

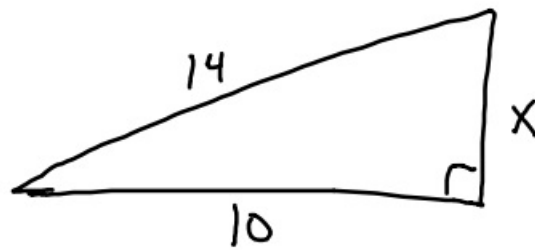
Mabble



~~3~~ ~~1~~ ~~6~~ ~~0~~ ~~n^2~~ ~~=~~ ~~7~~

8-21-17 6th Geo

①



$$leg^2 + leg^2 = hyp^2$$

$$10^2 + x^2 = 14^2$$

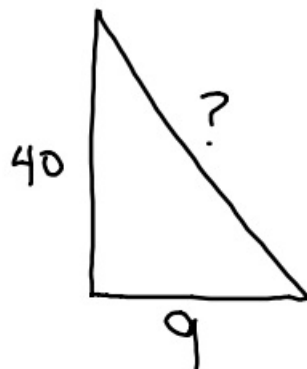
$$100 + x^2 = 196$$

$$\begin{array}{r} -100 \\ \hline \end{array} \quad \begin{array}{r} -100 \\ \hline \end{array}$$

$$\sqrt{x^2} = \sqrt{96}$$

$$x \approx 9.8$$

②



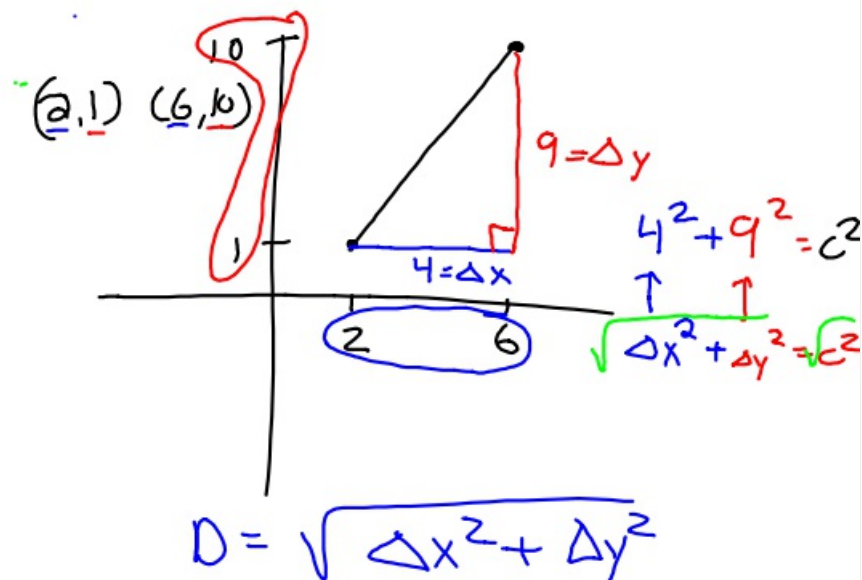
$$leg^2 + leg^2 = hyp^2$$

$$9^2 + 40^2 = c^2$$

$$81 + 1600 = c^2$$

$$\sqrt{1681} = \sqrt{c^2}$$

$$c = 41$$



③ Find the distance from $(20, 12)$ to $(28, 7)$.

$$\begin{aligned}
 D &= \sqrt{\Delta x^2 + \Delta y^2} \\
 &= \sqrt{8^2 + 5^2} \\
 &= \sqrt{64 + 25} \\
 &= \sqrt{89} \\
 &\approx 9.4
 \end{aligned}$$

④ $(2, 1)(4, 8)$

$$\begin{aligned}
 D &= \sqrt{\Delta x^2 + \Delta y^2} \\
 &= \sqrt{2^2 + 7^2} \\
 &= \sqrt{4 + 49} \\
 &= \sqrt{53} \\
 &\approx 7.3
 \end{aligned}$$

$$\textcircled{5} (\underline{-2}, \underline{-1})(\underline{-6}, \underline{7})$$

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$\begin{aligned} -6 - (-2) &= -4 = \sqrt{4^2 + 8^2} \\ -2 - (-6) &= 4 \end{aligned}$$

$$= \sqrt{16 + 64}$$

$$= \sqrt{80}$$

$$\approx 8.9$$

$$\textcircled{6} (\underline{0}, \underline{-8})(\underline{-5}, \underline{-2})$$

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{5^2 + 6^2}$$

$$= \sqrt{25 + 36}$$

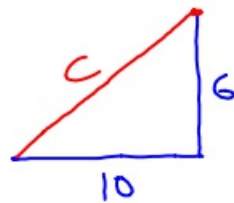
$$= \sqrt{61} \quad \sqrt{49} \quad \sqrt{64}$$

$$\approx 7.8$$

$$7$$

$$8$$

$\textcircled{7}$ I walk 10 miles due East and then turn and walk due North for 6 miles. How far from my starting point am I?

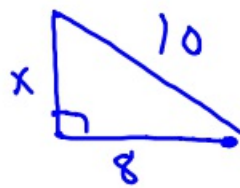


$$10^2 + 6^2 = c^2$$

$$\sqrt{136} = \sqrt{c^2}$$

$$c \approx 11.7$$

- ⑧ I walk due West for 8 miles and then turn due North and walk for 5 hours. I end up 10 miles from my original location. How far North did I walk?



$$x^2 + 8^2 = 10^2$$

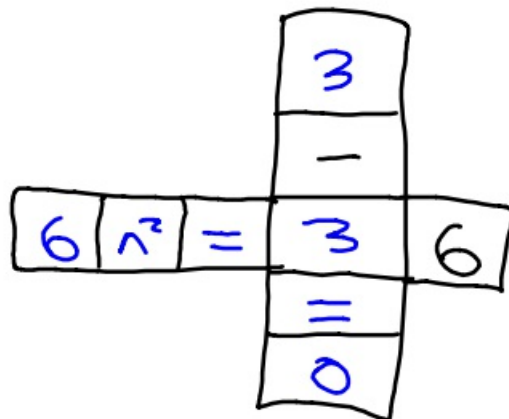
$$x^2 + 64 = 100$$

$$\begin{array}{r} x^2 + 64 = 100 \\ -64 \quad -64 \\ \hline \end{array}$$

$$x^2 = 36$$

$$x = 6$$

MABBLE



~~3~~ ~~3~~ ~~3~~ ~~3~~ ~~3~~ ~~3~~ ~~3~~