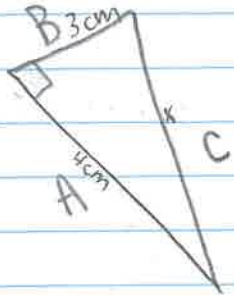


2 LEDs
2 Resistors
4 wires



$$4 + 3 = 7$$

$$x = 7$$

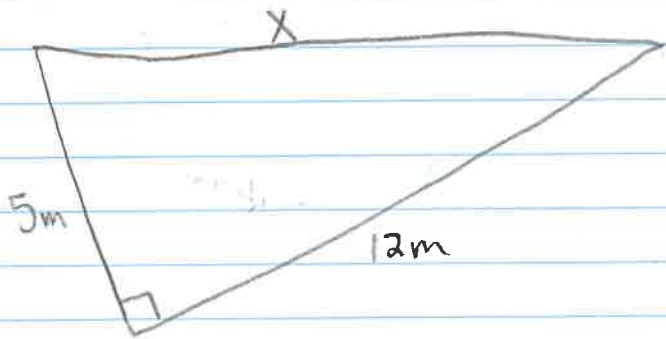
Correct - $(3)^2 + (4)^2 = C^2$

$$9 + 16 = C^2$$

$$\sqrt{25} = C^2$$

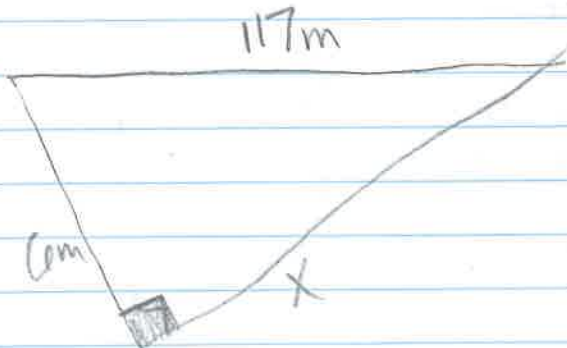
$$5 = C$$

$$C^2 = 25$$



$$(5)^2 + (12)^2 = C^2$$

$$25 + 144$$



$$(6)^2 + (117)^2$$

$$36 + 13689 = 13,725$$

$$\sqrt{13,725} = 117.13$$

$$h = 117.13$$

Pythagorean Theorem Feb 27

EQ: How can you apply the Pythagorean theorem to solve for unknown angles in a right triangle?

Summary: The difference between an isosceles and right is in an isosceles they add up to 180 and two sides are the same. To find the hypotenuse you have to multiply A

What is the difference between an isosceles and right triangle?

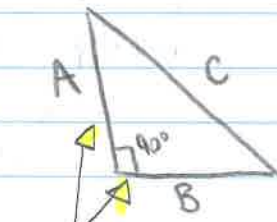
How can you find the hypotenuse?

What does ISOSCELES mean?

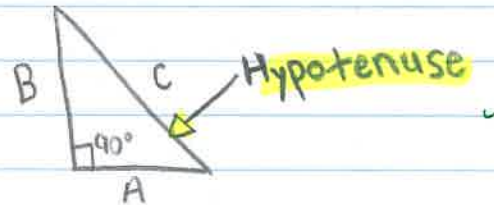
$$a = 14m$$

$$a^2 + b^2 = c^2$$

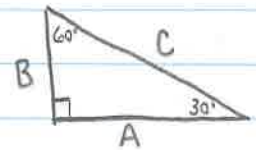
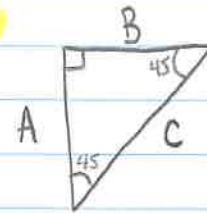
What does this equation represent?



Legs



Hypotenuse

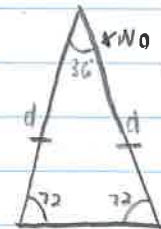
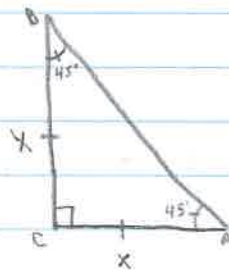


Angles

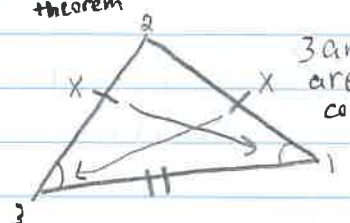
All sides add to 180°

Isosceles Triangles

Isosceles = two of the sides are the same.



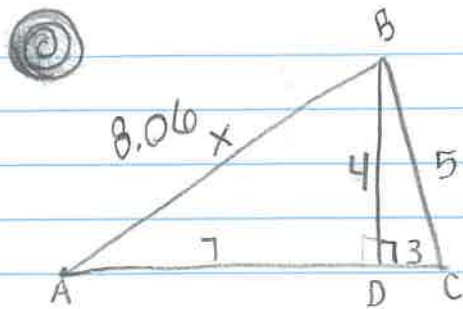
No right angle so no Pythagorean theorem



3 and 1 are congruent



$$90^\circ + 30^\circ + \theta = 180^\circ$$



$$A=3$$

$$B=$$

$$C=5$$

$$y=4 \quad (3)^2 + B = (5)^2$$

$$(7)^2 + (4)^2 = C^2$$

$$49 + 16 = C^2$$

$$\sqrt{65} = \sqrt{C^2}$$

$$8.06 = x$$

$$y^2 + 3^2 = 5^2$$

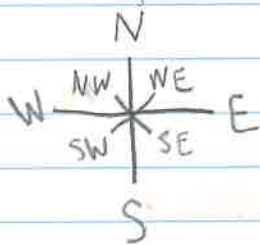
$$y^2 + 9 = 25$$

$$y^2 - 9 = 16$$

$$\sqrt{y^2} = \sqrt{16}$$

$$y = 4$$

How much total metal is needed to build this angle bracket



A

✓ 75 miles per hour to get to dallas, Texas from Pueblo

$$\text{Distance} = \text{Speed} \cdot \text{Times}$$

$$D = 685$$

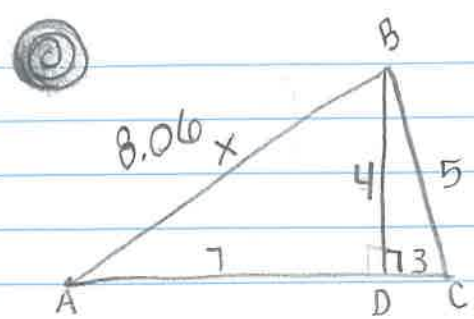
$$S = 75$$

$$T = ?$$

$$685 = 75 \cdot T$$

$$\frac{685}{75} = \frac{75 \cdot T}{75}$$

$$9.13 = T$$



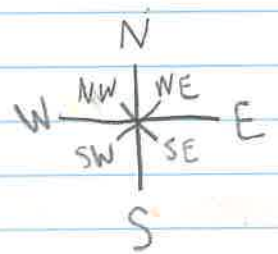
$$\begin{aligned} A &= 3 \\ B &= \\ C &= 5 \end{aligned}$$

$$y = 4 \quad (3)^2 + B = (5)^2$$

$$\begin{aligned} (7)^2 + (4)^2 &= C^2 \\ 49 + 16 &= C^2 \\ \sqrt{65} &= \sqrt{C^2} \\ 8.06 &= x \end{aligned}$$

$$\begin{aligned} y^2 + 3^2 &= 5^2 \\ y^2 + 9 &= 25 \\ \underline{-9 \quad -9} & \\ \sqrt{y^2} &= \sqrt{16} \\ y &= 4 \end{aligned}$$

How much total metal is needed to build this angle bracket

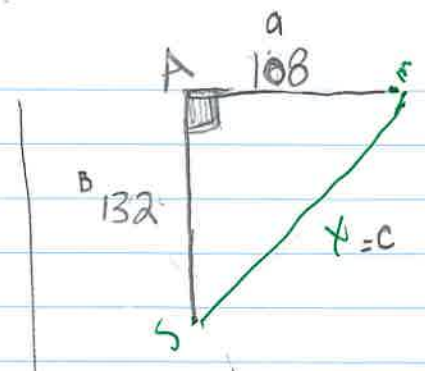


A

✓ 75 miles per hour to get to Dallas, Texas from Pueblo

Distance = Speed · Times

685 =	75 · T
75 =	75
9.13 =	T



$$\begin{aligned} D &= 5.5 \\ O &= 18.6 \end{aligned}$$

$$\begin{aligned} 108^2 + 132^2 &= c^2 \\ 11,664 + 17,424 &= c^2 \\ \sqrt{29,088} &= \sqrt{c^2} \\ \mathbf{170.55 \text{ km}} \end{aligned}$$

Summary continued: and B and then square and then use a square root to get the hypotenuse. Isosceles means that two sides are the same.

2 LED's
 2 Resistors
 4 Wires



$$4 + 3 = 7$$

$$x = 7$$

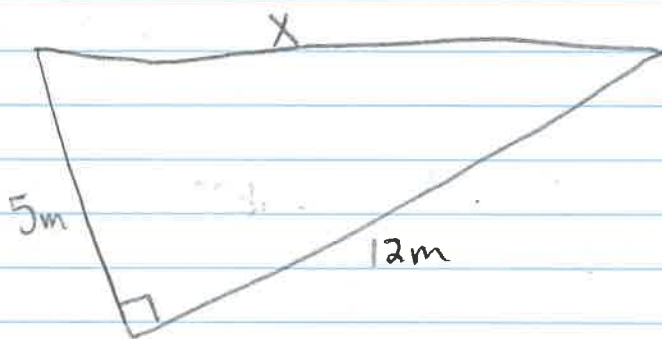
Correct - $(3)^2 + (4)^2 = C^2$

$$9 + 16 = C^2$$

$$\sqrt{25} = C^2$$

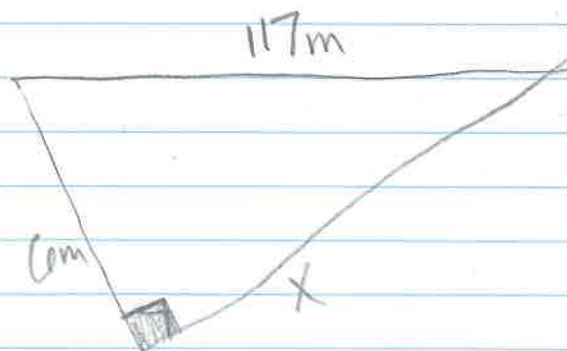
$$5 = C$$

$$C^2 = 25$$



$$(5)^2 + (12)^2 = C^2$$

$$25 + 144$$



$$(6)^2 + (117)^2$$

$$36 + 13689 = 13725$$

$$\sqrt{b^2} = \sqrt{13725}$$

$$b = 116.85$$