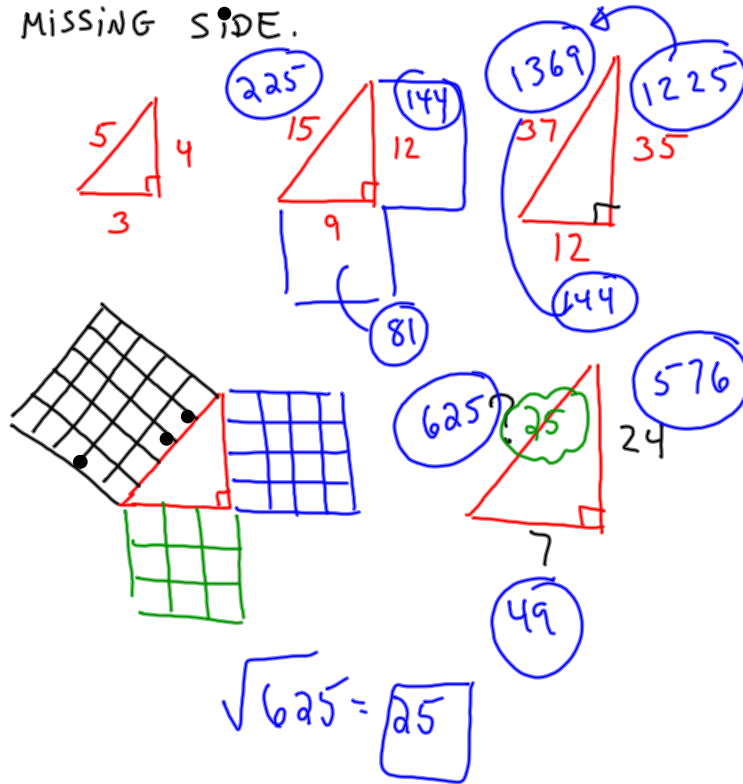
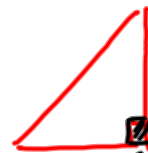


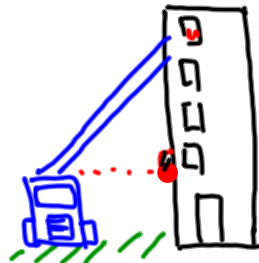
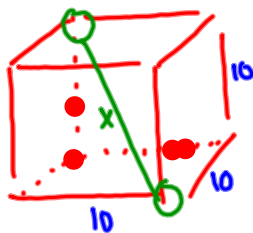
USE THE PATTERN TO FIND THE MISSING SIDE.

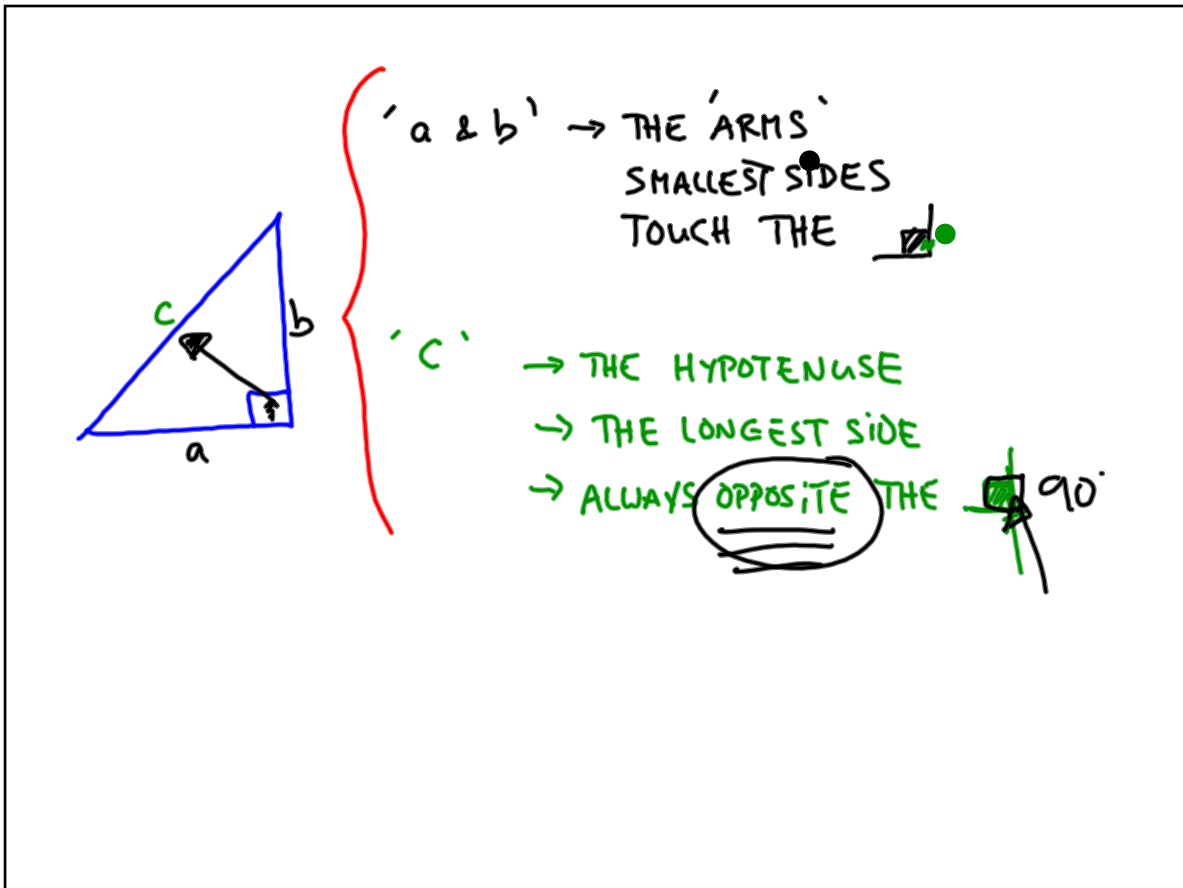
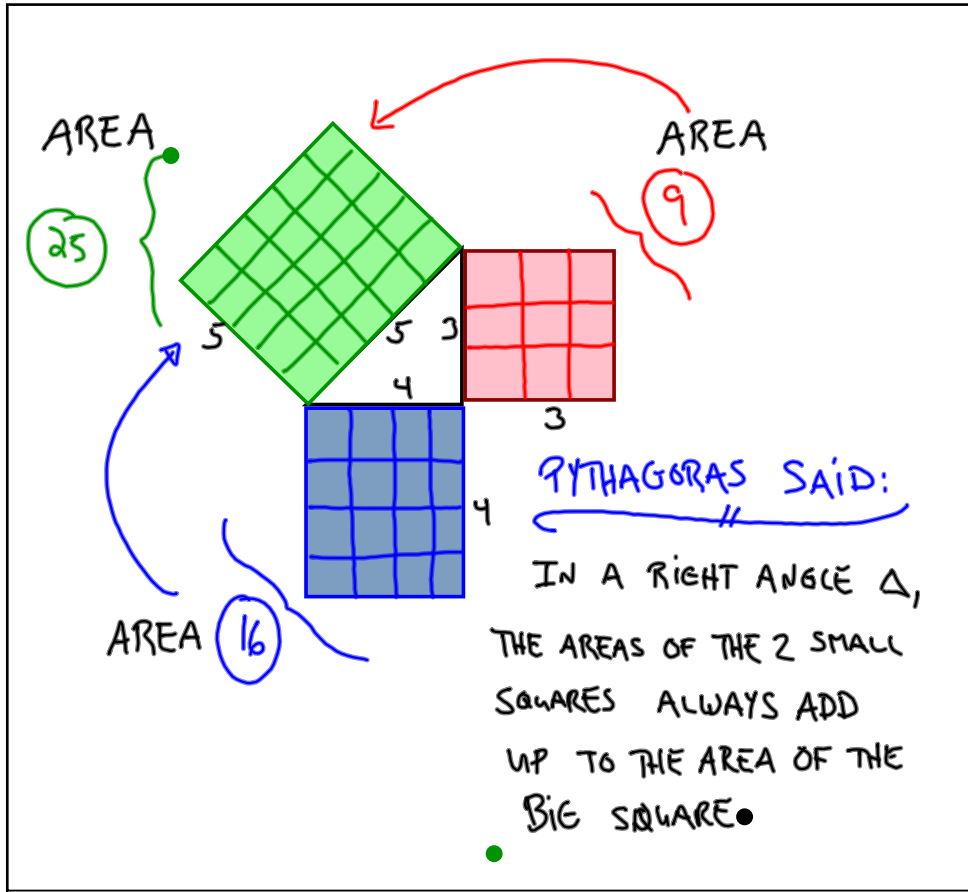


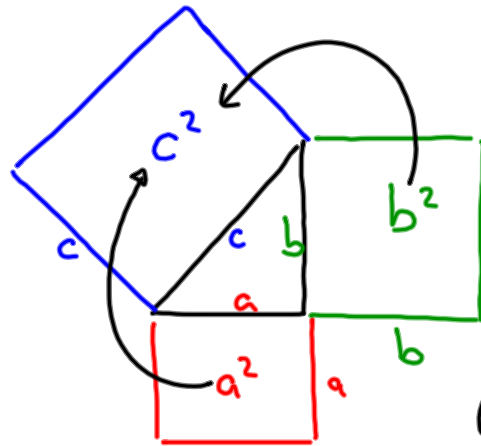
Pythagoras' Theorem:



THIS STUFF ONLY WORKS WITH RIGHT ANGLED TRIANGLES.





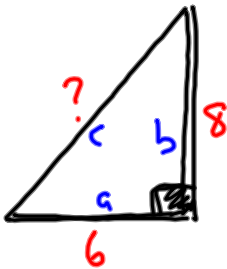


$$a^2 + b^2 = c^2$$

small area + small area = big area

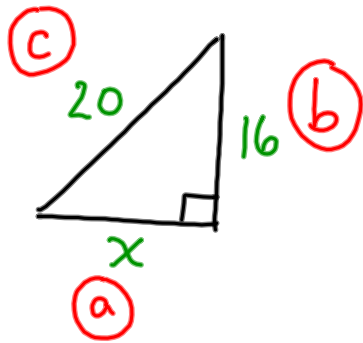
STEPS

- ① LABEL
- ② FORMULA
- ③ PLUG IN VALUES AND SOLVE.
- ④ TAKE THE $\sqrt{\quad}$ AT THE END.



$$\begin{aligned}
 a^2 + b^2 &= c^2 \\
 6^2 + 8^2 &= c^2 \\
 36 + 64 &= c^2 \\
 100 &= c^2
 \end{aligned}$$

$$\begin{aligned}
 \sqrt{100} &= \sqrt{c^2} \\
 10 &= c
 \end{aligned}$$



$$a^2 + b^2 = c^2 \text{ formula.}$$

$$a^2 + 16^2 = 20^2$$

$$a^2 + 256 = 400$$

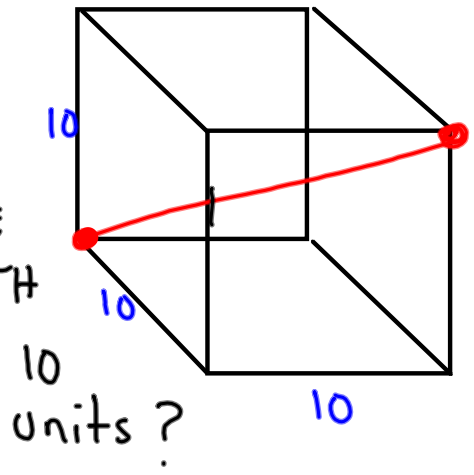
$$\begin{array}{r} - 256 \quad -256 \\ \hline \end{array}$$

$$\sqrt{a^2} = \sqrt{144}$$

$$a = 12$$

CHALLENGE:

WHAT IS THE LENGTH OF THE LONGEST STEEL ROD THAT CAN FIT INSIDE A CUBIC BOX WITH A SIDE LENGTH OF 10



units?