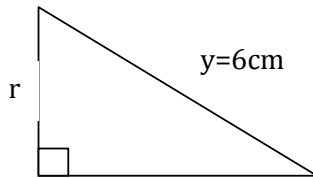
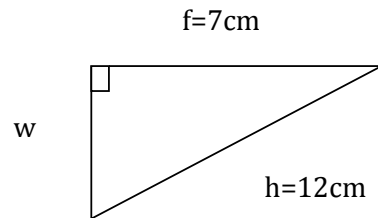


Determine the length of r



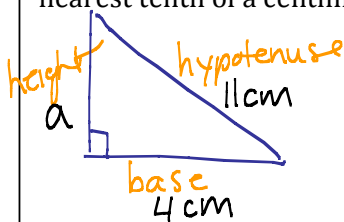
$$\begin{aligned} a^2 + b^2 &= c^2 \\ r^2 + 5^2 &= 6^2 \\ r^2 + 25 &= 36 \\ \sqrt{r^2} &= \sqrt{11} \\ \boxed{r = 3.3\text{cm}} \end{aligned}$$

Determine the length of w



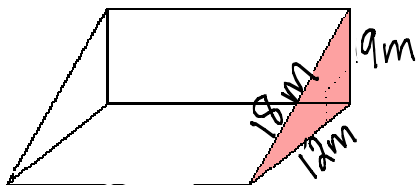
$$\begin{aligned} a^2 + b^2 &= c^2 \\ w^2 + 7^2 &= 12^2 \\ w^2 + 49 &= 144 \\ \sqrt{w^2} &= \sqrt{95} \\ \boxed{w = 9.75\text{cm}} \end{aligned}$$

Find the height of a triangle with a base of 4 cm and a hypotenuse of 11 cm. Round to the nearest tenth of a centimeter. Show your work.



$$\begin{aligned} a^2 + b^2 &= c^2 \\ a^2 + 4^2 &= 11^2 \\ a^2 + 16 &= 121 \\ \sqrt{a^2} &= \sqrt{105} \\ \boxed{a = 10.2\text{cm}} \end{aligned}$$

Ellie and Lucas are going to the skateboard park to try out the new ramp. Is the new ramp a right triangle? Explain your thinking.



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 9^2 + 12^2 &= 18^2 \\ 81 + 144 &= 324 \\ 225 &\neq 324 \end{aligned}$$

\therefore It is NOT a right triangle because the formula does not work!
 $RS \neq LS$.