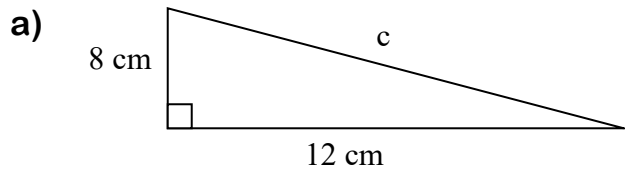


# Le théorème de Pythagore

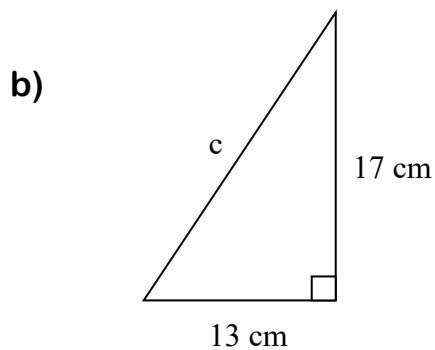
1. Trouve la longueur manquante.



$$\begin{aligned}a^2 + b^2 &= c^2 \\8^2 + 12^2 &= c^2 \\64 + 144 &= c^2 \\208 &= c^2\end{aligned}$$

$$\begin{aligned}\sqrt{208} &= \sqrt{c^2} \\14,42 &= c\end{aligned}$$

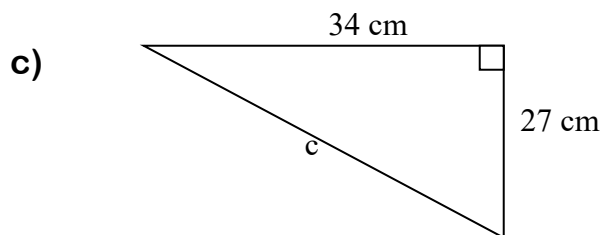
Le côté  $c$  mesure 14,42 cm



$$\begin{aligned}a^2 + b^2 &= c^2 \\13^2 + 17^2 &= c^2 \\169 + 289 &= c^2 \\458 &= c^2\end{aligned}$$

$$\begin{aligned}\sqrt{458} &= \sqrt{c^2} \\21,40 &= c\end{aligned}$$

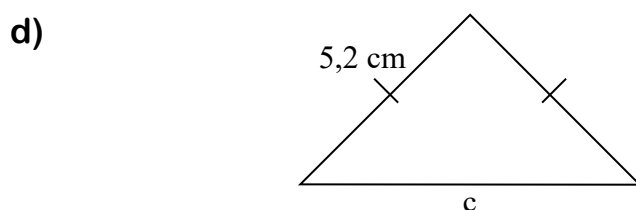
Le côté  $c$  mesure 21,40 cm



$$\begin{aligned}a^2 + b^2 &= c^2 \\34^2 + 27^2 &= c^2 \\1156 + 729 &= c^2 \\1885 &= c^2\end{aligned}$$

$$\begin{aligned}\sqrt{1885} &= \sqrt{c^2} \\43,42 &= c\end{aligned}$$

Le côté  $c$  mesure 43,42 cm

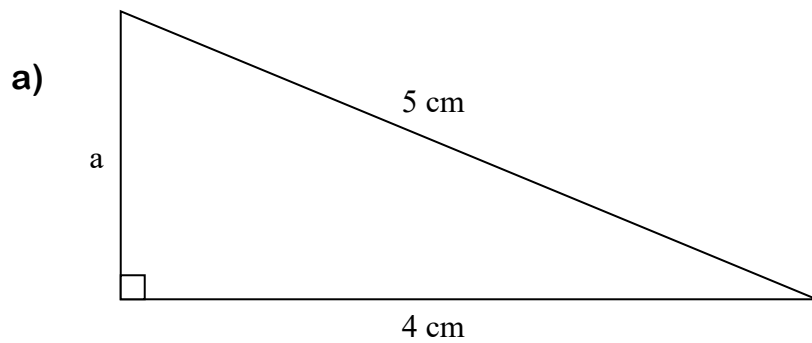


$$\begin{aligned}a^2 + b^2 &= c^2 \\5,2^2 + 5,2^2 &= c^2 \\27,04 + 27,04 &= c^2 \\54,08 &= c^2\end{aligned}$$

$$\begin{aligned}\sqrt{54,08} &= \sqrt{c^2} \\7,4 &= c\end{aligned}$$

Le côté  $c$  mesure 7,4 cm

2. Trouve la longueur du côté manquant.



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

$$a^2 = c^2 - b^2$$

$$a^2 = 5^2 - 4^2$$

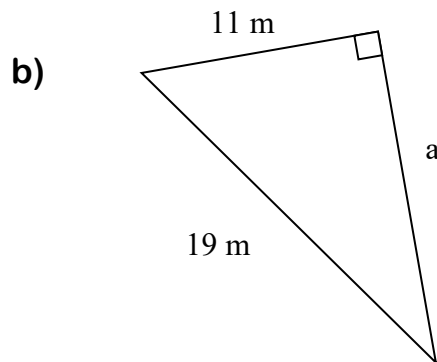
$$a^2 = 25 - 16$$

$$a^2 = 9$$

$$\sqrt{a^2} = \sqrt{9}$$

$$a = 3$$

Le côté  $a$  mesure 3 cm



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

$$a^2 = c^2 - b^2$$

$$a^2 = 19^2 - 11^2$$

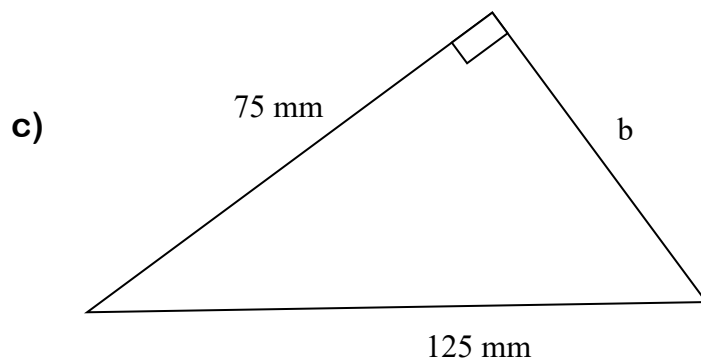
$$a^2 = 361 - 121$$

$$a^2 = 240$$

$$\sqrt{a^2} = \sqrt{240}$$

$$a = 15,5$$

Le côté  $a$  mesure 15,5 m



$$b^2 = c^2 - a^2$$

$$b^2 = 125^2 - 75^2$$

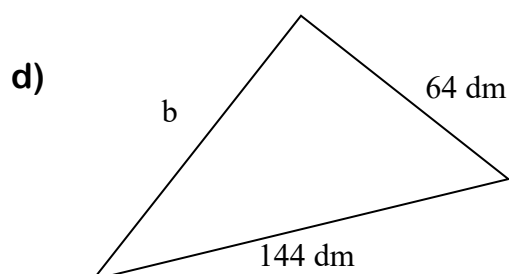
$$b^2 = 15\,625 - 5\,625$$

$$b^2 = 10\,000$$

$$\sqrt{b^2} = \sqrt{10000}$$

$$b = 100$$

Le côté  $b$  mesure 100 mm



$$b^2 = c^2 - a^2$$

$$b^2 = 144^2 - 64^2$$

$$b^2 = 20\,736 - 4\,096$$

$$b^2 = 16\,640$$

$$\sqrt{b^2} = \sqrt{16640}$$

$$b = 129$$

Le côté  $b$  mesure 129 dm