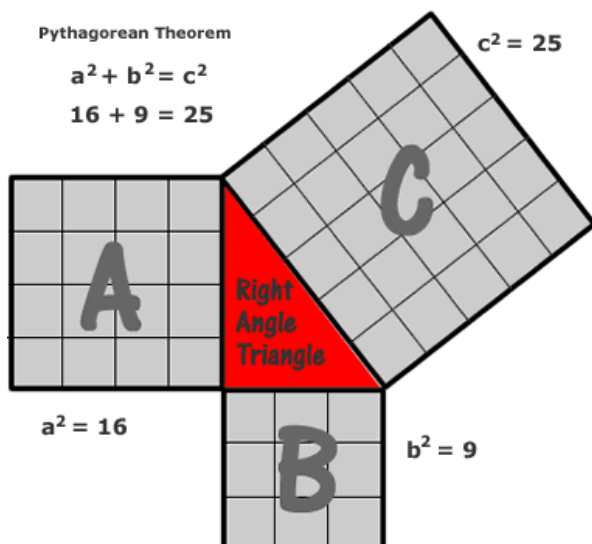


**Subject: Mathematics**

**Student:** .....

**School year:** ...../.....

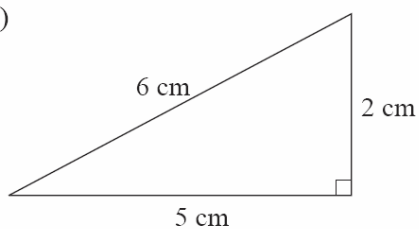
**Topic: Pythagoras theorem**



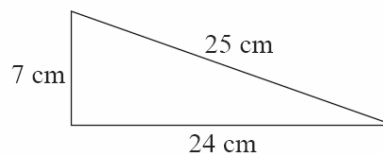
## Gymnázium, Brno, Slovanské nám. 7

1. Decide whether each of the following triangles contains a right angle:

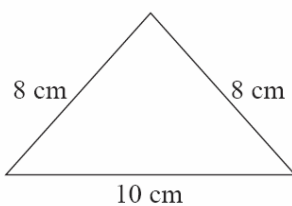
(a)



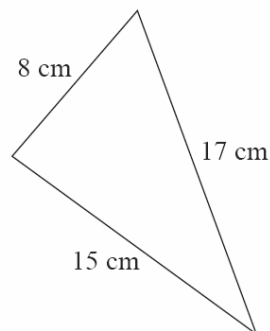
(b)



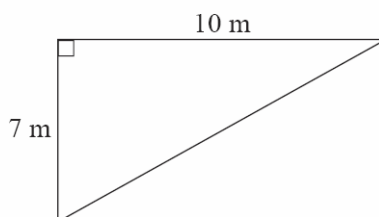
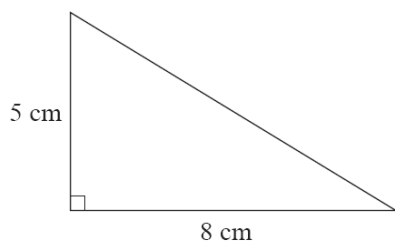
(c)



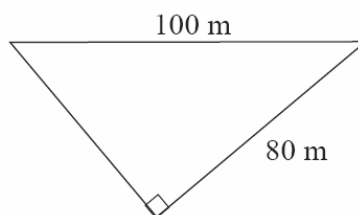
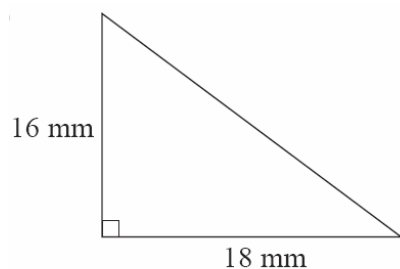
(d)



2. Calculate the length of the hypotenuse of each the following triangles, giving your answers correct to 1 decimal place:

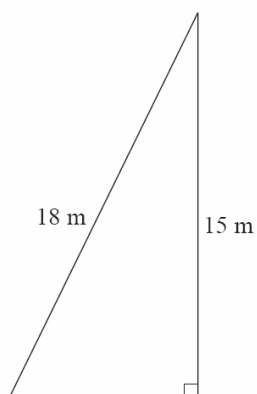


3. Calculate the length of the unknown side in each the following triangles:



**Gymnázium, Brno, Slovanské nám. 7**

4. Calculate the perimeter of each the following triangles, giving your answers correct to 1 decimal place:



5. Rovnoramenný trojúhelník ABC má ramena délky  $a = b = 9,1$  cm a výška k základně je  $v = 8,4$  cm. Vypočítejte délku základny  $c$ .

$$c = 7 \text{ cm}$$

6. Délky stran obdélníku jsou v poměru 5:12 a obvod obdélníku je 238 cm. Vypočítejte délku úhlopříčky.

$$\text{přibl. } 90 \text{ cm}$$

7. Vypočítejte délku strany kosočtverce, jehož úhlopříčky mají délky  $e = 96$  cm,  $f = 40$  cm.

$$a = 52 \text{ cm}$$

Uses:

<http://math.about.com/od/pythagorean/ss/pythag.htm>