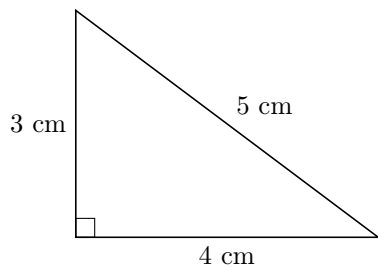


PYTHAGOREAN THEOREM

A RIGHT-ANGLED TRIANGLE

A.1 CALCULATING SQUARED SIDE LENGTHS

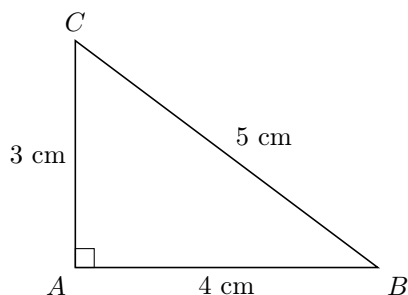
Ex 1:



Find the length of the hypotenuse.

cm

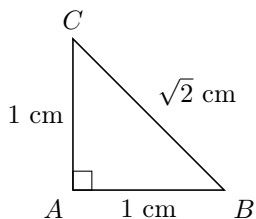
Ex 2:



Let a be the length of one leg, b the length of the other leg, and c the length of the hypotenuse. Calculate $a^2 + b^2$ and c^2 .

$$a^2 + b^2 = \boxed{} \text{ cm}^2 \text{ and } c^2 = \boxed{} \text{ cm}^2$$

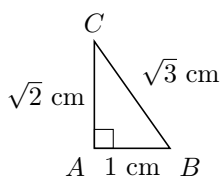
Ex 3:



Let a be the length of one leg, b the length of the other leg, and c the length of the hypotenuse. Calculate $a^2 + b^2$ and c^2 .

$$a^2 + b^2 = \boxed{} \text{ cm}^2 \text{ and } c^2 = \boxed{} \text{ cm}^2$$

Ex 4:



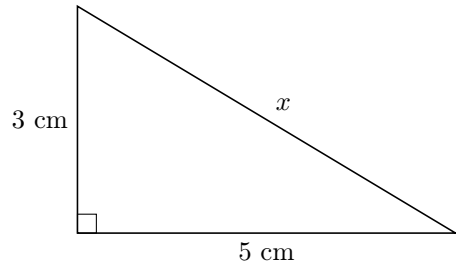
Let a be the length of one leg, b the length of the other leg, and c the length of the hypotenuse. Calculate $a^2 + b^2$ and c^2 .

$$a^2 + b^2 = \boxed{} \text{ cm}^2 \text{ and } c^2 = \boxed{} \text{ cm}^2$$

B PYTHAGOREAN THEOREM

B.1 FINDING THE LENGTH OF THE HYPOTENUSE

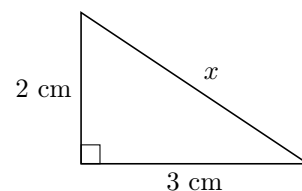
Ex 5:



Find x .

$$x \approx \boxed{} \text{ cm (round to 1 decimal place)}$$

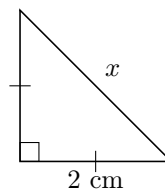
Ex 6:



Find x .

$$x \approx \boxed{} \text{ cm (round to 1 decimal place)}$$

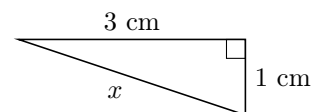
Ex 7:



Find x .

$$x \approx \boxed{} \text{ cm (round to 1 decimal place)}$$

Ex 8:

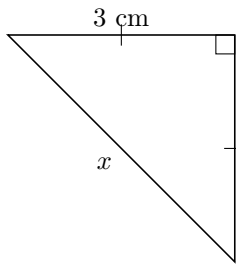


Find x .

$$x \approx \boxed{} \text{ cm (round to 1 decimal place)}$$

Ex 9:



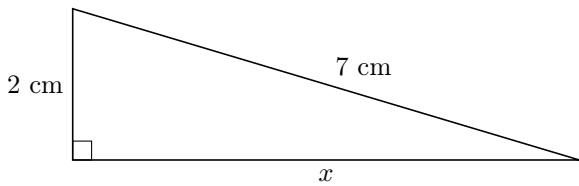


Find x .

$x \approx \boxed{}$ cm (round to 1 decimal place)

B.2 FINDING THE LENGTH OF A LEG

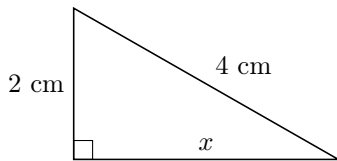
Ex 10:



Find x .

$x \approx \boxed{}$ cm (round to 1 decimal place)

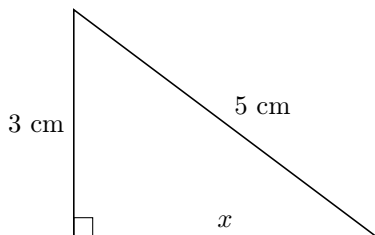
Ex 11:



Find x .

$x \approx \boxed{}$ cm (round to 1 decimal place)

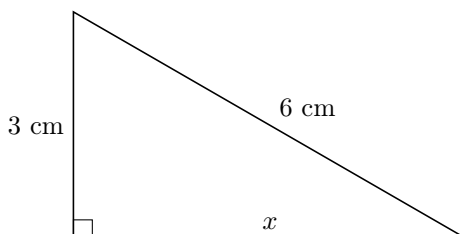
Ex 12:



Find x .

$x = \boxed{}$ cm

Ex 13:

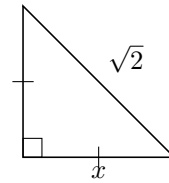


Find x .

$x \approx \boxed{}$ cm (round to 1 decimal place)

B.3 APPLYING THE PYTHAGOREAN THEOREM

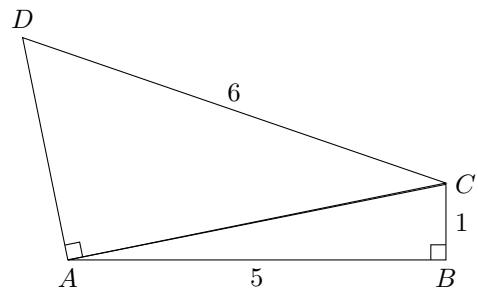
Ex 14:



Find x .

$x = \boxed{}$

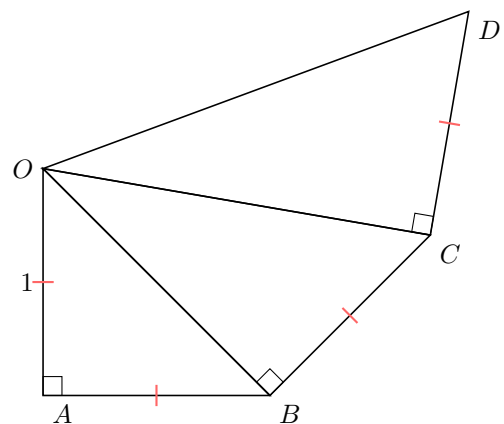
Ex 15:



Find the length AD .

$AD \approx \boxed{}$ cm (round to 1 decimal place)

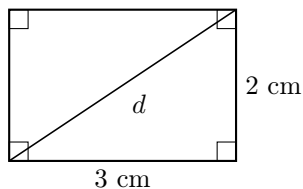
Ex 16:



Find OD .


$OD = \boxed{}$

Ex 17:




Find d .


$d \approx$ cm (round to 1 decimal place)

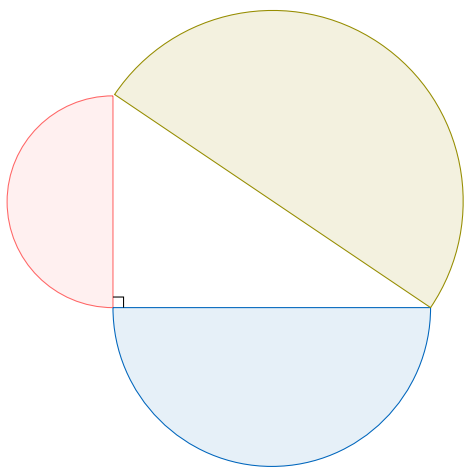
Ex 18:  A square has diagonals of length 4 cm. Find the length of the square's sides.

$x \approx$ cm (round to 1 decimal place)

Ex 19:  A rhombus has diagonals of length 8 cm and 10 cm. Find the length of its sides.

$x \approx$ cm (round to 1 decimal place)

MCQ 20:  State whether the sum of the areas of the blue and red half-circles equals the area of the green half-circle.



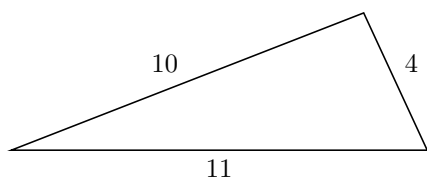
☐ True

☐ False

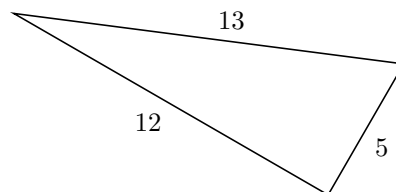
C VERIFYING RIGHT-ANGLED TRIANGLES

C.1 VERIFYING RIGHT-ANGLED TRIANGLES

Ex 21: Is this a right-angled triangle? Justify.



MCQ 22: Is this a right-angled triangle?

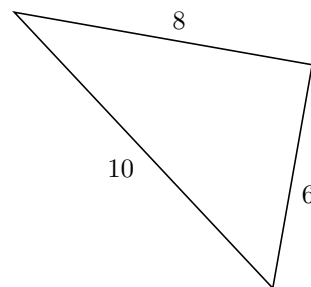


Choose one answer:

☐ True

☐ False

MCQ 23: Is this a right-angled triangle?

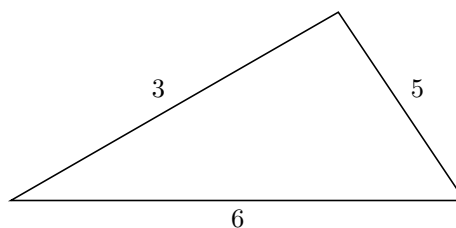


Choose one answer:

☐ True

☐ False

MCQ 24: Is this a right-angled triangle?

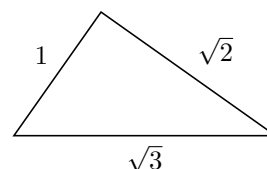


Choose one answer:

☐ True

☐ False

MCQ 25: Is this a right-angled triangle?

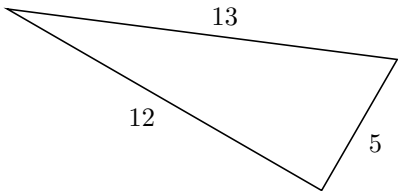


Choose one answer:

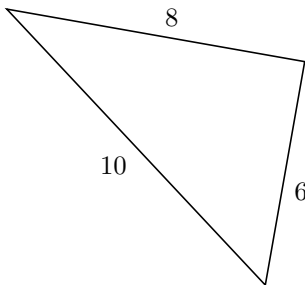
☐ True

☐ False

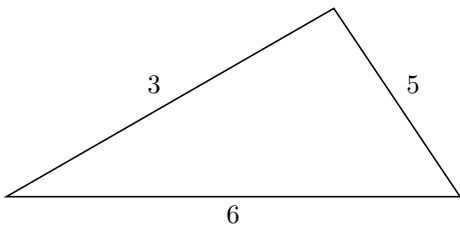
Ex 26: Is this a right-angled triangle? Justify.



Ex 27: Is this a right-angled triangle? Justify.



Ex 28: Is this a right-angled triangle? Justify.



Ex 29: Is this a right-angled triangle? Justify.

