Review and Feedback

CHG

Q1) Find x $(2dp)$:

9cm

12cm

x
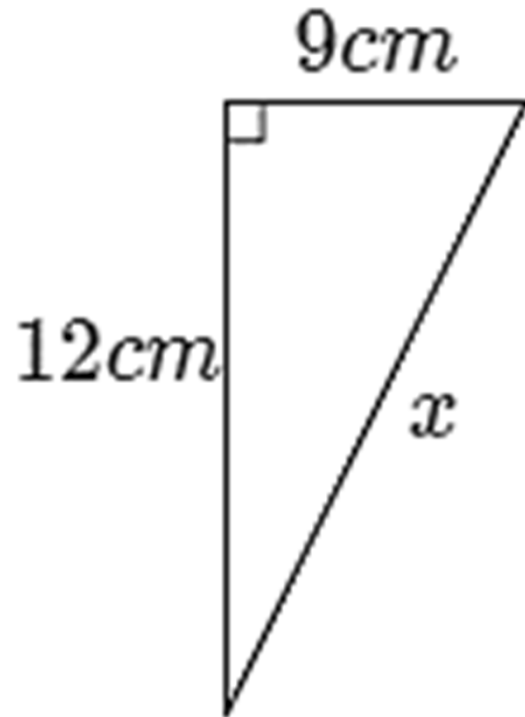
☐ You can find the hypotenuse. (A01)

Name:_____

CHG

Q2)   Find x to the nearest cm:

23cm
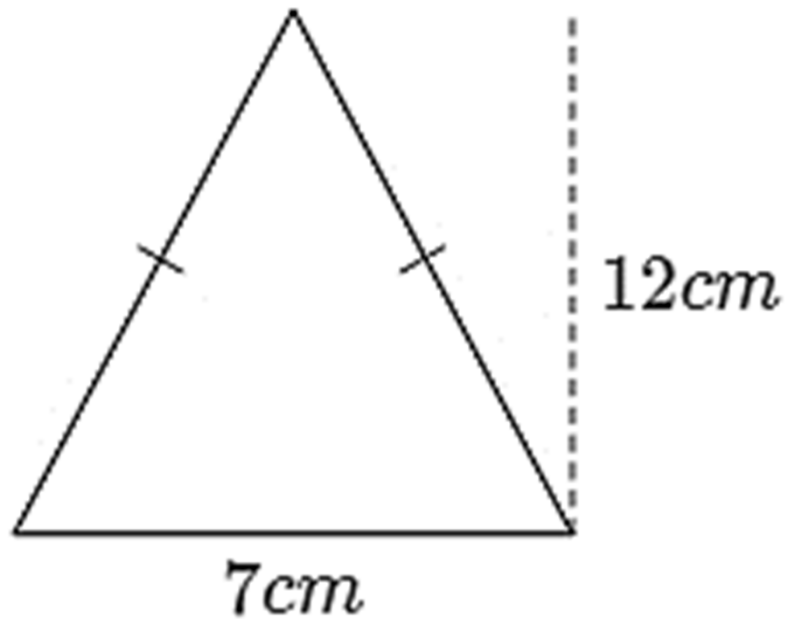
x

6cm
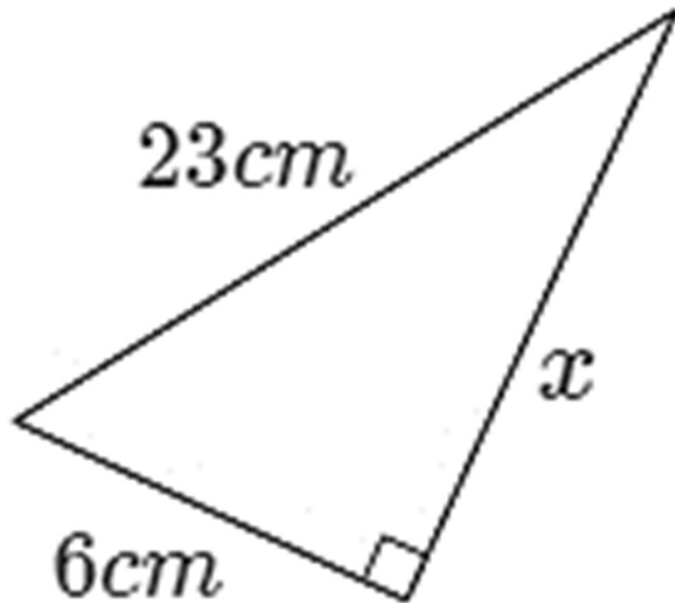
☐   You can find the shorter side   (A01)

Q3) Find the area of this triangle

11cm

6cm
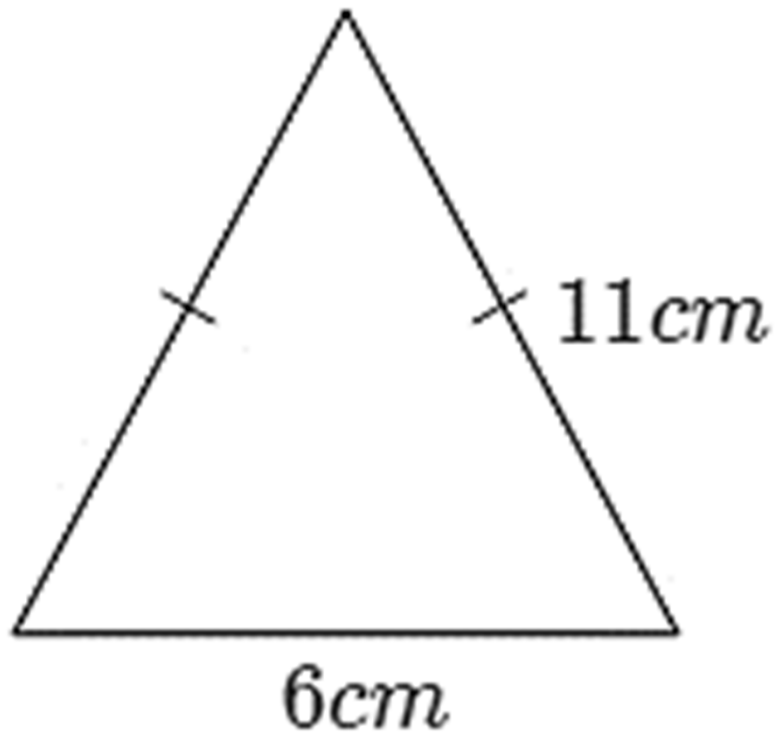
You can do 2 steps Pythagoras problem. (A01)

Q4) Find perimeter of this triangle

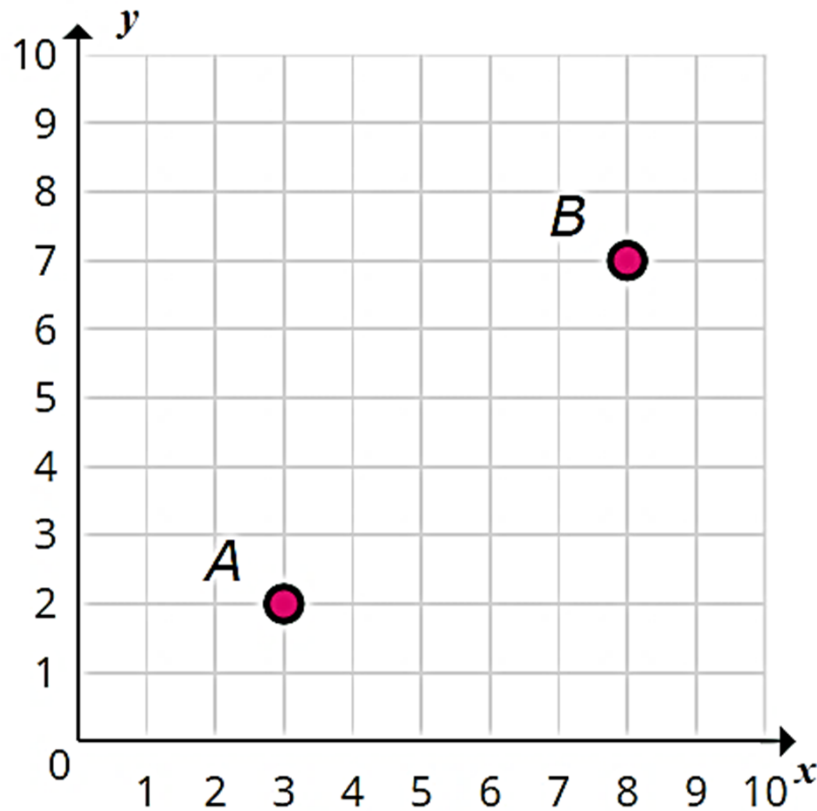You can do 2 steps Pythagoras problem. (A01)

Q5) Here are lengths of sides of four triangles.
Which triangle is right-angled?

- **A** 5cm, 12cm, 17cm

- **B** 11cm, 11cm, 18cm

- **C** 5cm, 6cm, 7cm

- **D** 21cm, 28cm, 35cm
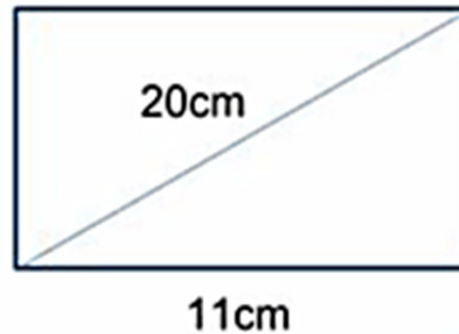
☐ You can do reasoning problem (A02).

Q6) Calculate the distance between A and B.

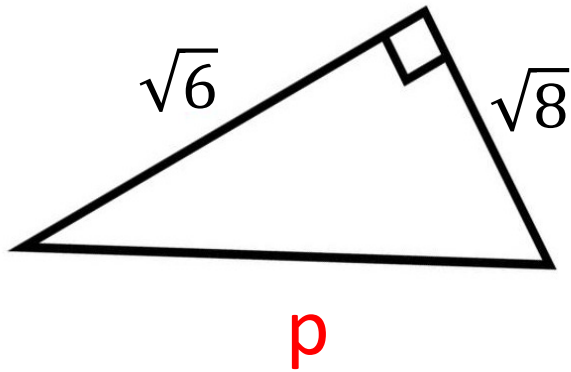

You can solve more complex problem.

Q7) The diagram shows a rectangle made of wire. Find the total length of wire used to make the shape (including the diagonal) to 2 decimal places.

20cm

11cm

You can do problem solving question (A03).

Q8) Calculate the length of side p.
Leave your answer in surd form.

$\sqrt{6}$

$\sqrt{8}$

p

Teacher's comment

ATL Grade:

CHG

Review and Feedback

Q1)   Find x (2dp):

9cm

12cm

x

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

$$9^2 + 12^2 = x^2$$

$$81 + 144 = x^2$$

$$x^2 = 225$$

$$x = \sqrt{225}$$

$$x = 15 \ cm$$

☐   You can find the hypotenuse. (A01)

Name:_____ ANSWER

CHG

Q2) Find x to the nearest cm:

23cm

6cm

x

☐ You can find the shorter side   (A01)
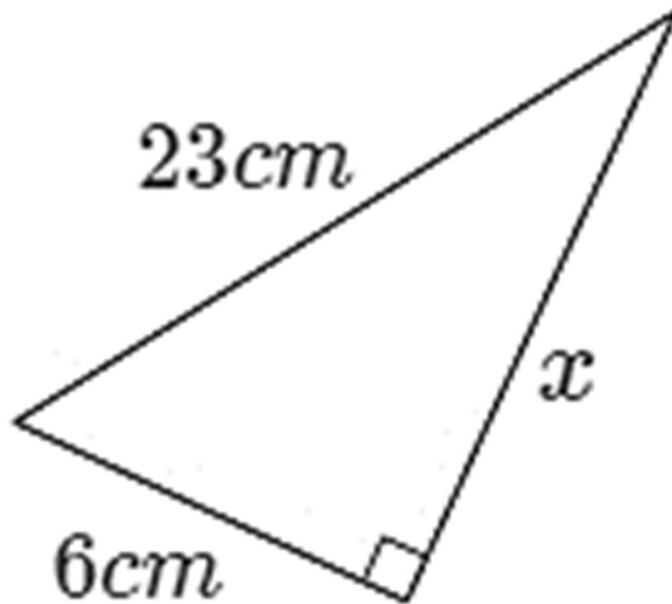
$$a^2 + b^2 = c^2$$

$$x^2 + 6^2 = 23^2$$

$$x^2 + 36 = 529$$
$$(-36) \qquad (-36)$$

$$x^2 = 529 - 36$$

$$x^2 = 493$$

$$x = \sqrt{493}$$

$$x = 22.2 \, cm \Big/ \underline{\underline{22cm}}$$

Q3) Find the area of this triangle

h ⟋| 11
3

$11cm$

$6cm$

$3cm$ $3cm$

You can do 2 steps Pythagoras problem. (A01)

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

$$h^2 + 3^2 = 11^2$$

$$h^2 + 9 = 121$$

$$h^2 = 121 - 9$$

$$h^2 = 112$$

$$h = \sqrt{112}$$

$$h = 10.58$$

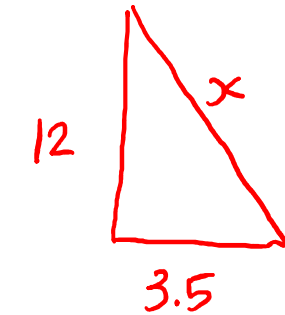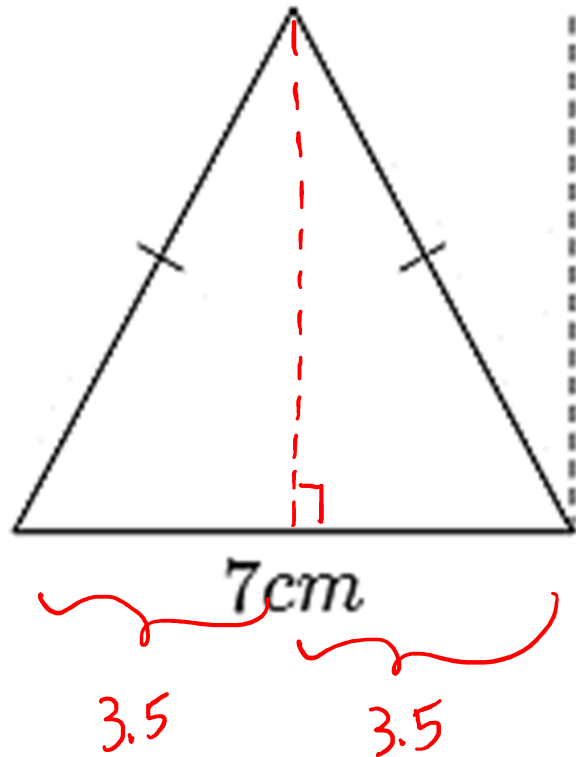Area: $\dfrac{b \times h}{2} = \dfrac{6 \times 10.58}{2} = 31.75 \, cm^2$

Q4) Find perimeter of this triangle

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

$12^2 + 3.5^2 = x^2$

$144 + 12.25 = x^2$

$x^2 = 156.25$

$x = \sqrt{156.25}$

$x = 12.5$

12

x

3.5

12cm

7cm

3.5   3.5

perimeter :

12.5 $\triangle$ 12.5

7
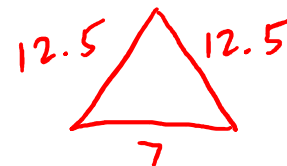
$12.5 + 12.5 + 7$

$= 32\ cm$

You can do 2 steps Pythagoras problem. (A01)

Q5)

Here are lengths of sides of four triangles.
Which triangle is right-angled?

The longest side must be hypotenuse. Therefore $\underline{C}$.

(A) 5cm, 12cm, 17cm $5^2 + 12^2 \neq 17^2$

(B) 11cm, 11cm, 18cm $11^2 + 11^2 \neq 18^2$

(C) 5cm, 6cm, 7cm $5^2 + 6^2 \neq 7^2$

(D) 21cm, 28cm, 35cm

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

$21^2 + 28^2 = 35^2$
$441 + 784 = 1225$
$1225 = 1225$

☑ You can do reasoning problem (A02).

Q6) Calculate the distance between A and B.

$5^2 + 5^2 = x^2$

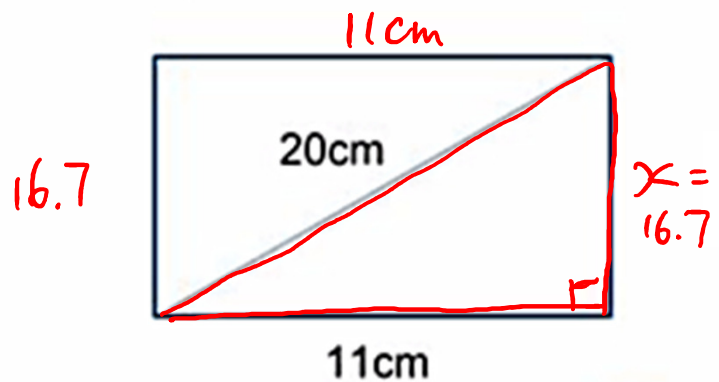$25 + 25 = x^2$

$x^2 = 50$

$x = \sqrt{50}$

$x = 7.07$

☐ You can solve more complex problem.

Q7) The diagram shows a rectangle made of wire. Find the <mark>ANSWER</mark> length of wire used to make the shape (including the diagonal) to 2 decimal places.
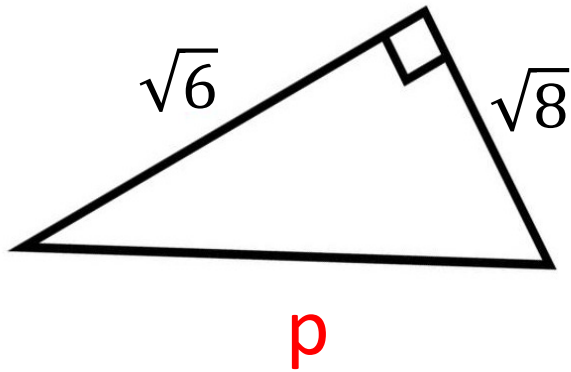

11cm

20cm

16.7

11cm

$x =$ 16.7

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

$$x^2 + 11^2 = 20^2$$

$$x^2 = 400 - 121$$

$$x^2 = \sqrt{279}$$

$$x = 16.7$$

All wire used = $11 + 11 + 16.7 + 16.7 + 20$

$$= 75.4 \, cm$$

☐ You can do problem solving question (A03).

Q8) Calculate the length of side p.
Leave your answer in surd form.

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

$$\left(\sqrt{6}\right)^2 + \left(\sqrt{8}\right)^2 = p^2$$

$$6 + 8 = p^2$$

$$14 = p^2$$

$$p = \sqrt{14}$$

√6   √8

p

☐ You can solve problem with surds.

Teacher's comment

ATL Grade: