

Short Assessment 2

Time Allowed: 35 minutes

Total Marks: 32

---

1.

- (a) Calculate the size of angle  $a$  in this right-angled triangle.  
Give your answer correct to 3 significant figures.

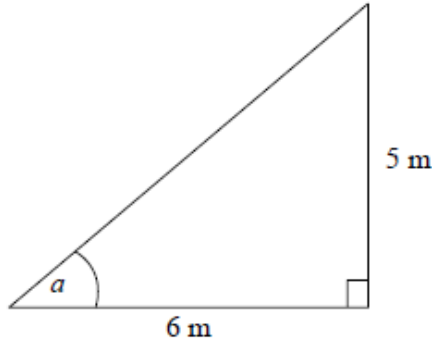


Diagram NOT  
accurately drawn

.....  
(3)

- (b) Calculate the length of the side  $x$  in this right-angled triangle.  
Give your answer correct to 3 significant figures.

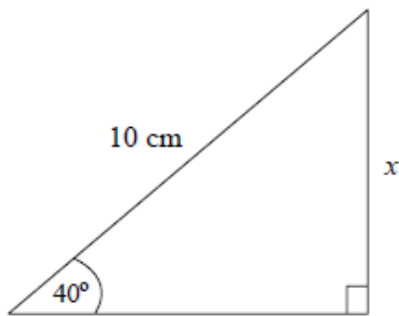


Diagram NOT  
accurately drawn

..... cm  
(3)

2.

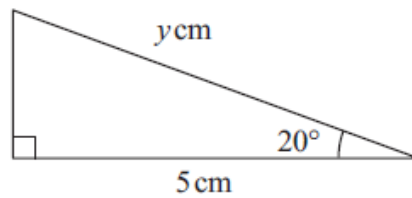


Diagram NOT accurately drawn

Calculate the value of  $y$ .  
Give your answer correct to 3 significant figures.

$y = \dots\dots\dots$   
(3)

---

3.

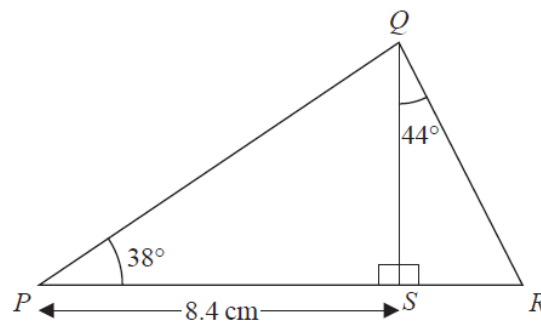


Diagram NOT accurately drawn

$PSR$  is a straight line.

- Angle  $PSQ = 90^\circ$
- $PS = 8.4$  cm
- Angle  $QPS = 38^\circ$
- Angle  $SQR = 44^\circ$

Work out the length of  $QR$ .  
Give your answer correct to 3 significant figures.

**There is more space on the next page to do this question.**

.....cm

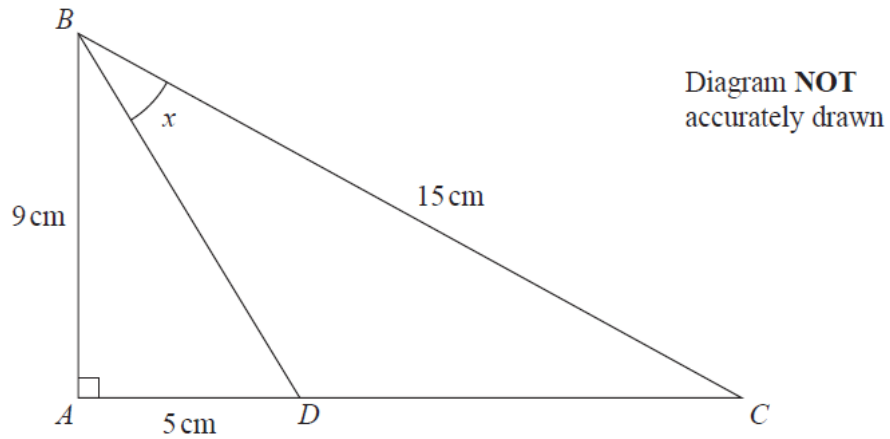
(4)

---

**Question 4 is on the next page.**

4.

The diagram shows triangle  $ABC$ .



$AB = 9 \text{ cm}$     $BC = 15 \text{ cm}$   
 $D$  is the point on  $AC$  such that  $AD = 5 \text{ cm}$ .  
Angle  $BAC = 90^\circ$

Calculate the size of angle  $x$ .  
Give your answer to the nearest degree.

.....  
(5)

5. Solve the following equations **by factorising**.

**Answers without any factorisation will be given no marks.**

(a)  $x^2 + 11x + 30 = 0$

.....  
(2)

(b)  $y^2 - 7y = 0$

.....  
(2)

(c)  $3x^2 + 7x - 6 = 0$

.....  
(3)

---

6. Solve using **any method**, leaving your answers correct to 1 decimal place where necessary.

**Answers without clear steps will be given no marks.**

(a)  $3x(x - 1) + 8 = x(2x + 3)$

.....  
(4)

(b)  $x^2 - 6x - 2 = 0$

.....  
(3)

---

**- End of Test -**