

## A Geometry: Triangle construction

Skill 6.9

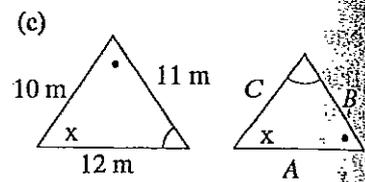
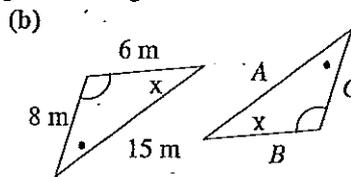
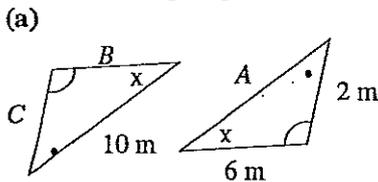
Draw a right angled triangle with side lengths of 6 cm, 8 cm and hypotenuse 10 cm.

- 1 Draw the perpendicular bisectors of each side to find the circumcentre and draw the circumcircle.
- 2 Draw the medians of the triangle to find the centroid.

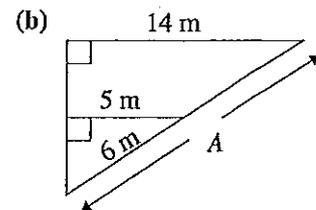
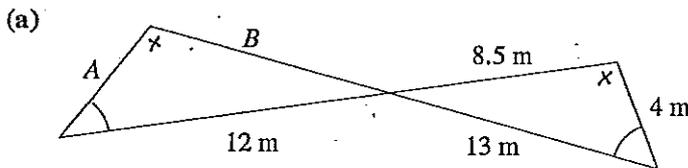
## B Measurement: Similar and congruent triangles

Skill 7.3

- 1 Find the missing lengths in these congruent triangles:



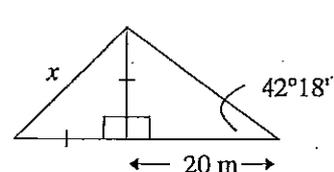
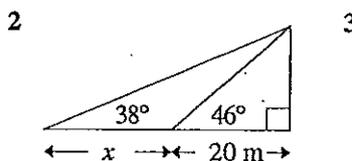
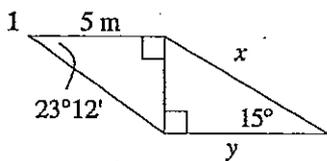
- 2 Find the missing lengths:



## C Trigonometry: Composite figures

Skill 8.7

Find the missing lengths in the following:



## D Trigonometry: Practical applications in two dimensions

Skill 8.8

- 1 A yacht travels for 10 km on the bearing E15°N and then a further 15 km on the bearing E45°N. Find:
  - (a) How far east it has travelled?
  - (b) How far north it has travelled?
  - (c) The straight line distance between where it finished and where it started.
- 2 A hiker standing 400 m from the base of a cliff sights the top of it and measures the angle of elevation at 12°15'. Find the height of the cliff.

## E Chance and data: Measures of spread

Skill 9.3

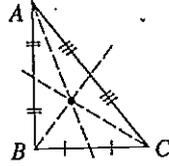
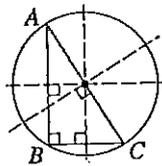
The following are a set of scores made by the masked dart champion "Bullseye Bill":  
(24, 42, 13, 40, 68, 72, 25, 50, 38, 58).

Find:

- 1 the range of the scores
- 2 the mean of the scores
- 3 the standard deviation of the scores

## Worksheet 28

A 1



- B 1 (a)  $A = 10$  m (b)  $A = 15$  m (c)  $A = 10$  m  
 $B = 6$  m  $B = 6$  m  $B = 11$  m  
 $C = 2$  m  $C = 8$  m  $C = 12$  m
- 2  $A = 3.69$  m (a)  $A = 16.8$  m  
 $B = 7.85$  m
- C 1 (a)  $x = 8.28$  m (b)  $y = 8.00$  m  
2  $x = 6.5$  m 3  $x = 25.74$  m
- D 1 (a) 20.27 km (b) 13.19 km (c) 25 km  
2 86.85 m
- E 1 59 2 43 3 19.32