Construction and Scale Drawing
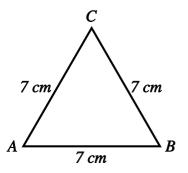
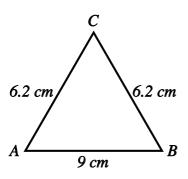Name: Class: Date:

1) Construct triangle ABC with sides of length 7 cm as shown in the diagram below (not drawn to scale).

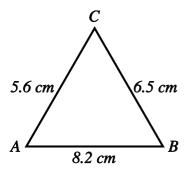Measure the perpendicular height of your construction in centimetres (to the nearest mm).

[1]

2) Construct a triangle ABC with a base length AB = 9 cm and sides AC = 6.2 cm and BC = 6.2 cm as shown in the diagram below.

C

6.2 cm   6.2 cm

A   9 cm   B

Measure the perpendicular height of your construction from the base AB in centimetres (to the nearest mm).

[1]

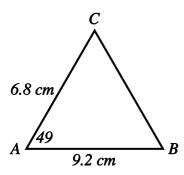**3)** Construct a triangle ABC with a base length AB = 8.2 cm and sides AC = 5.6 cm and BC = 6.5 cm as shown in the diagram below.

C

5.6 cm   6.5 cm

A   8.2 cm   B

Measure the perpendicular height of your construction from the base AB in centimetres (to the nearest mm).

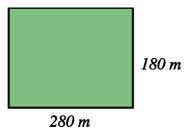[1]

4) Construct triangle ABC where base AB = 9.2 cm, AC = 6.8 cm and angle BAC = 49° as shown in the diagram below.

C

6.8 cm

49

A   9.2 cm   B

a) Measure the length BC of your construction, giving your answer in centimetres (to the nearest mm).

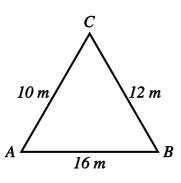b) Measure angle ABC on your construction, giving your answer to the nearest degree.

[1]

5) The diagram shows a field with length 280 metres and width 180 metres.   [1]

180 m

280 m

Use a scale of 1 cm to 20 m to make an accurate scale drawing of the field.
Find the diagonal distance across the field.
Give your answer to the nearest metre.

6) The diagram shows a sketch of a triangle ABC with base length AB = 16 m and sides AC = 10 m and BC = 12 m.

C

10 m   *12 m*

A _____ *B*
   16 m

Use a scale of 1 cm to 2 m to make an accurate scale drawing of the triangle.
Find the perpendicular height from the base AB of the triangle by measuring your construction.
Give your answer to the nearest metre.

[1]

Solutions for the assessment Construction and Scale Drawing

1) Perpendicular height = 6.1 cm

2) Perpendicular height = 4.3 cm

3) Perpendicular height = 4.4 cm

4) a) BC = 7 cm, b) angle ABC = 47°

5) Diagonal distance = 333 m

6) Perpendicular height = 7 m