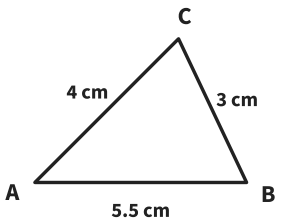
Constructing a triangle from three sides

1 Measure AB along the line first.

Construct triangle ABC with AB = 5.5 cm, AC = 4 cm and BC = 3 cm.
Leave your arcs showing.



Sketch, not accurate

A

2 Arc from D with DF, from E with EF.

Construct triangle DEF with DE = 5 cm, DF = 3.5 cm and EF = 3 cm.
Leave your arcs showing.

D

3

Construct triangle GHJ with GH = 5 cm, GJ = 4.5 cm and HJ = 2.5 cm.
Leave your arcs showing.

G

4

Construct triangle KLM with KL = 5.5 cm, KM = 2.5 cm and LM = 4 cm.
Leave your arcs showing.

K

Constructing a triangle from three sides

5 *Notice the change!*

Construct an equilateral triangle with sides of 3.5 cm. Then measure one of its angles.

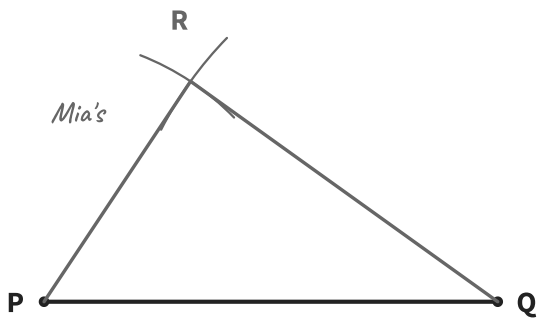
Angle = _____

6 *Notice the change!*

Triangle RST has RS = 3 cm, ST = 4.5 cm and RT = 5.5 cm. Construct it with its longest side as the base. Leave your arcs showing.

7

Mia should have PR = 5 cm and QR = 3.5 cm. Here is her construction. What did she do wrong?



Answer _____

8

A triangular window has sides of 1 m, 90 cm and 60 cm. Make a scale drawing, with 1 cm for 20 cm.

Drawn _____

Constructing a triangle from three sides *further practice*

9

Construct triangle UVW with UV = 5 cm, VW = 4 cm and UW = 3.5 cm.
Leave your arcs showing.

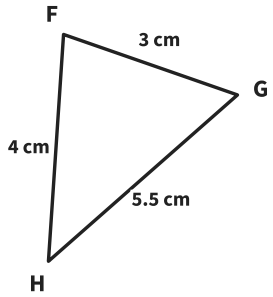
10

Triangle KLM is isosceles. KL = 5 cm, and KM and LM are both 4 cm. Construct it.
Measure angles K and L. What do you notice?

Answer _____

11

Here is a sketch of triangle FGH. Construct it accurately, with its longest side as the base. Measure its largest angle.



Not drawn accurately

Largest angle = _____

12

A shelf bracket is a triangle with sides of 50 cm, 40 cm and 30 cm. Make a scale drawing, with 1 cm for 10 cm. What angle is between the 30 cm and 40 cm sides?

Angle = _____

Constructing a triangle from three sides *further practice*

13

Construct the rhombus ABCD with sides of 3 cm and the diagonal AC = 5.4 cm.
Then measure the diagonal BD.

BD = _____

14

Which of these sets of lengths make a triangle? Explain each one.

a) 3 cm, 4 cm, 8 cm

b) 5 cm, 5 cm, 9 cm

c) 2.5 cm, 6 cm, 3 cm

Answer _____

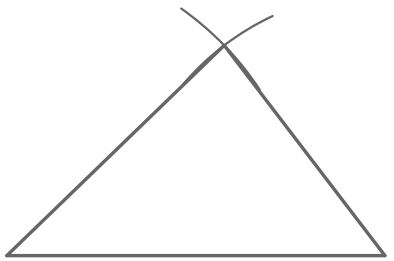
15

Ali says he can construct a triangle with sides of 2.5 cm, 3.5 cm and 6 cm.
Is he right? Explain.

Answer _____

16

Kai and Ella each construct a triangle with sides of 3.5 cm, 4 cm and 5 cm.
Kai uses 5 cm as the base. Ella uses 3.5 cm. Will their triangles be the same? Explain.



Kai

Answer _____