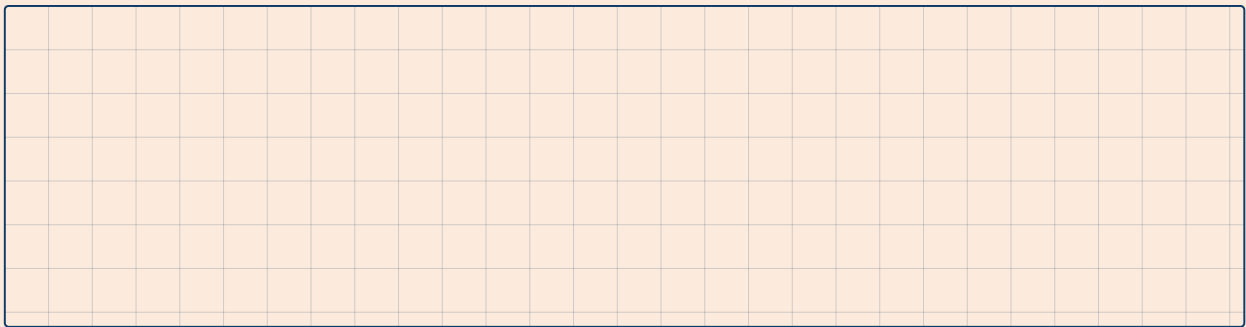


CONSTRUCT TRIANGLE FROM SIDES 7 CM, 6 CM, 5 CM

- 1 Draw the base line 7 cm long using a ruler.
- 2 Open compass to 6 cm and draw an arc from one end of the base.
- 3 Open compass to 5 cm and draw an arc from the other end of the base.
- 4 Mark the point where the two arcs cross.
- 5 Join this point to both ends of the base to complete the triangle.

WARM-UP

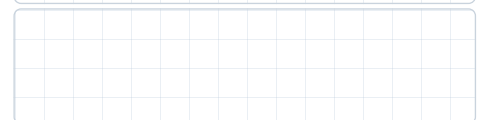
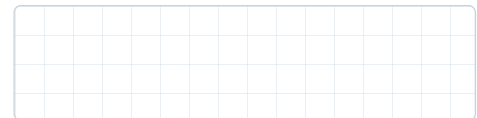
Use the squared space to construct the triangle and work out angles.



1. Draw base line of exactly 7 cm.
2. Set compass to 8 cm from one end and to 3 cm from the other end then mark the crossing point.
3. Measure two angles with protractor and ring the third angle found by 180 degree rule.

PRACTICE

- 1 A builder needs a triangular brace with sides exactly 6 cm, 5 cm and 4 cm. Draw it using ruler and compass.
- 2 An engineer designs a frame with sides 8 cm, 7 cm and 6 cm. Build the triangle and measure two angles with a protractor.

**? ALWAYS, SOMETIMES, NEVER**

Always, sometimes or never true? Write A, S or N.

- | | |
|--|---|
| a. Three given side lengths fix exactly one triangle. <input type="text"/> | c. Sides of 3 cm, 4 cm and 10 cm make a closed triangle. <input type="text"/> |
| b. Two given angles and a side fix only one triangle. <input type="text"/> | d. The third angle in a triangle is found by subtracting the other two from 180 degrees. <input type="text"/> |

REFLECT

Which is harder — measuring an angle accurately or drawing one? Why?

