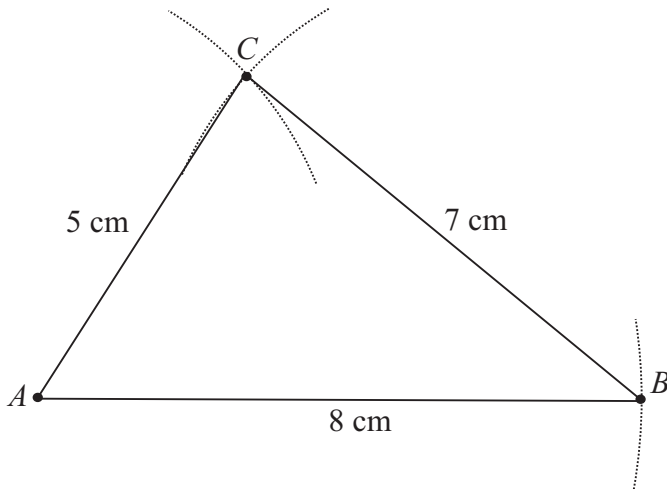


## LC 2017: PAPER 2

**QUESTION 4 (25 MARKS)**

**Question 4 (a)**



Using a compass, measure out a length of 8 cm.

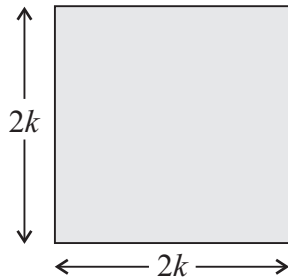
With the point of the compass on  $A$ , draw an arc  $|AB|$  of length 8 cm.

Draw a radius of 5 cm with the point of the compass placed at  $A$ . Draw a radius of 7 cm with the point of the compass placed at  $B$ . Where the arcs intersect is point  $C$ .

Join  $A$  to  $C$  and  $B$  to  $C$  to form triangle  $ABC$ .

**Question 4 (b)**

(i) Area =  $(2k)(2k) = 4k^2 \text{ cm}^2$



(ii)  $20^2 + 20^2 = (2k)^2$

$$400 + 400 = 4k^2$$

$$800 = 4k^2$$

$$200 = k^2$$

$$\therefore k = \sqrt{200} = 14.14 \text{ cm}$$

Shaded area

= Area of square – Area of triangle

$$= 4k^2 - \frac{1}{2}(20)(20)$$

$$= 4(200) - 200$$

$$= 800 - 200 = 600 \text{ cm}^2$$

