8.
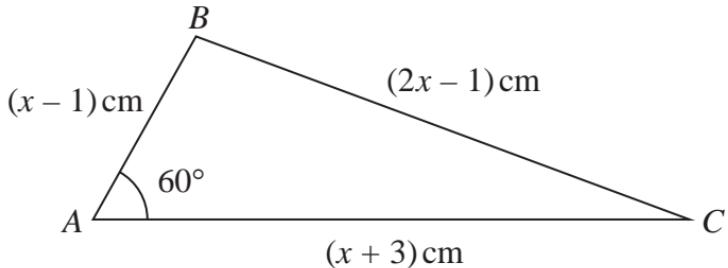

Figure 1

Figure 1 shows a sketch of triangle *ABC*.

Given that

- $AB = (x - 1)\,\text{cm}$

- $BC = (2x - 1)\,\text{cm}$

- $AC = (x + 3)\,\text{cm}$

- angle $BAC = 60°$

(a) show that $x^2 - 2x - 4 = 0$

(3)

(b) Hence find the area of triangle *ABC* giving your answer to 3 significant figures.

(3)