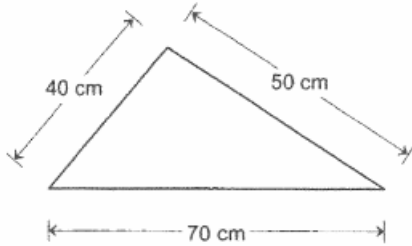


Finding the Area of a Triangle – Supplemental Questions with Solutions

1. To the nearest cm^2 , what is the area of the triangle below?



Use Hero's formula:

$$A = \sqrt{p(p-a)(p-b)(p-c)}$$

p = half perimeter

$$p = \frac{40 + 50 + 70}{2} = 80$$

$$A = \sqrt{80(80-40)(80-50)(80-70)}$$

$$= \sqrt{80(40)(30)(10)}$$

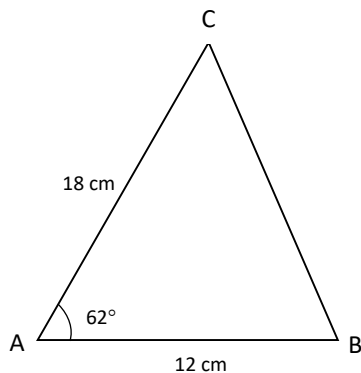
$$= \sqrt{960000}$$

$$= 979.796$$

$$\approx 980 \text{ cm}^2$$

2. What is the area of triangle ABC if angle A is 62 degrees, side B is 18 cm and side C is 12 cm?

- 1) Draw/sketch the triangle



- 2) Use trigonometric formula

$$A = \frac{ab \sin C}{2}$$

$$A = \frac{(12)(18) \sin 62^\circ}{2}$$

$$A = 95.36 \text{ cm}^2$$