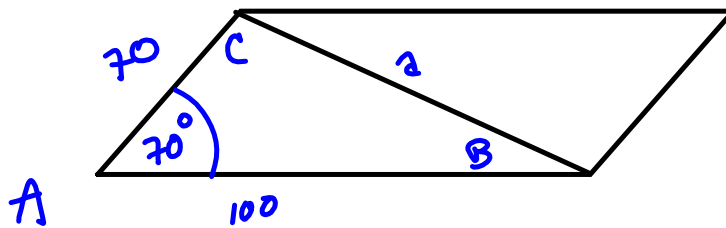


$$\frac{h}{70} = \sin 70^\circ$$

$$h = 70 \sin 70^\circ$$

$$\text{Area} = (100)(70 \sin 70^\circ)$$



$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$= 70^2 + 100^2 - 2(70)(100) \cos(70^\circ) \approx 10111.71800$$

$$\Rightarrow a \approx 100.5570385$$

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

$$\text{where } s = \frac{a+b+c}{2}$$