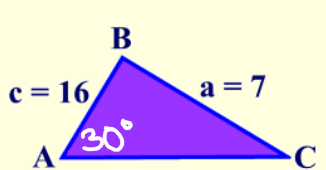


Law of Sines-Ambiguous Case

Can be used if you know: AAS or ASA

If you know SSA, this is called the ambiguous case.

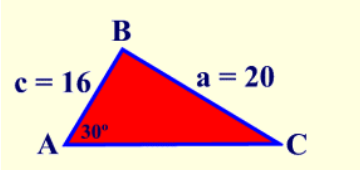
Always check by doing the following:



$$\frac{\sin A}{a} = \frac{\sin C}{c} \rightarrow \frac{\sin 30}{7} = \frac{\sin C}{16}$$

$$\sin C = 1.14$$

No triangle



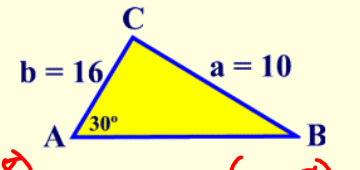
$$\frac{\sin A}{a} = \frac{\sin C}{c} \rightarrow \frac{\sin 30}{20} = \frac{\sin C}{16}$$

$$\angle C = 23.6$$

$$\angle A = 30, \angle B = 126.4, \angle C = 23.6$$

$$\angle A = 30, \angle C = 156.4$$

No 2nd triangle



$$\frac{\sin A}{a} = \frac{\sin B}{b} \rightarrow \frac{\sin 30}{10} = \frac{\sin B}{16}$$

$$\angle A = 30, \angle B = 53, \angle C = 97$$

$$\angle A = 30, \angle B = 127, \angle C = 23$$

TWO triangles possible.

