

Ambiguous Cases:  
A-S-S  
 0-1-2 Δ's

①  $a=15, b=25, A=85^\circ$

$\frac{15}{\sin 85} = \frac{25}{\sin B}$   
 $25(\sin 85) = 15 \sin B$   
 $\frac{15}{15} = \frac{25(\sin 85)}{15}$   
 $\text{ans} = \sin B$

no

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②  $a=12, b=31, A=20.5^\circ$

$\frac{12}{\sin 20.5} = \frac{31}{\sin B}$   
 $\frac{12}{\sin 20.5} = \frac{31}{\sin 94.7}$

$\Delta 2? \quad 180^\circ - \text{first } \angle \text{ found}$   
 $180^\circ - 64.8^\circ = 115.2^\circ \text{ new } \angle B$

$\frac{12}{\sin 20.5} = \frac{31}{\sin 44.3}$

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③  $a=22, b=12, A=42^\circ$

$\frac{22}{\sin 42} = \frac{12}{\sin B}$

$\Delta 2? \quad 180^\circ - 21.4 = \text{new } \angle B$   
 $= 158.6^\circ$

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