

Pre Calculus 6 4 Part II Ambiguous Cases

Lesson 186 | Precalculus | SSA ambiguous case

https://www.youtube.com/watch?v=PNh_mdnULZI

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

For the SSA data $A=30^\circ$, $b=4$, and $a=9$, determine the number of possible triangles and find possible B angles to 0.1° .

02

For the SSA data $A=30^\circ$, $b=10$, and $a=11$, determine the number of possible triangles and find possible B angles to 0.1° .

03

For the SSA data $A=30^\circ$, $b=12$, and $a=12$, determine the number of possible triangles and find possible B angles to 0.1° .

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Name: _____ Date: _____ Show your reasoning.

04

For the SSA data $A=30^\circ$, $b=16$, and $a=12$, determine the number of possible triangles and find possible B angles to 0.1° .

05

For the SSA data $A=30^\circ$, $b=22$, and $a=17$, determine the number of possible triangles and find possible B angles to 0.1° .

06

For the SSA data $A=30^\circ$, $b=12$, and $a=11$, determine the number of possible triangles and find possible B angles to 0.1° .

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01

For the SSA data $A=30^\circ$, $b=4$, and $a=9$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=2$. Since $a=9 \geq b=4$, there is one triangle: $B \approx 12.8^\circ$. Its supplement would make $A+B \geq 180^\circ$.

02

For the SSA data $A=30^\circ$, $b=10$, and $a=11$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=5$. Since $a=11 \geq b=10$, there is one triangle: $B \approx 27.0^\circ$. Its supplement would make $A+B \geq 180^\circ$.

03

For the SSA data $A=30^\circ$, $b=12$, and $a=12$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=6$. Since $a=12 \geq b=12$, there is one triangle: $B \approx 30.0^\circ$. Its supplement would make $A+B \geq 180^\circ$.

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04

For the SSA data $A=30^\circ$, $b=16$, and $a=12$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=8$. Since $8<12<16$, there are two triangles. $\sin B=8/12$, so $B \approx 41.8^\circ$ or 138.2° . Both leave a positive C .

05

For the SSA data $A=30^\circ$, $b=22$, and $a=17$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=11$. Since $11<17<22$, there are two triangles. $\sin B=11/17$, so $B \approx 40.3^\circ$ or 139.7° . Both leave a positive C .

06

For the SSA data $A=30^\circ$, $b=12$, and $a=11$, determine the number of possible triangles and find possible B angles to 0.1° .

Height $b \sin A=6$. Since $6<11<12$, there are two triangles. $\sin B=6/11$, so $B \approx 33.1^\circ$ or 146.9° . Both leave a positive C .