

Pre-Calculus 6 4 Part I Law of Sines

Lesson 191 | Precalculus | Law of sines and ambiguous cases

<https://www.youtube.com/watch?v=v1TEzsLSSaw>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Triangle ABC has $A=50^\circ$, $B=50^\circ$, and $a=80$. Find C and side b to 0.01.

02

Triangle ABC has $A=45^\circ$, $B=75^\circ$, and $a=56$. Find C and side b to 0.01.

03

Triangle ABC has $A=55^\circ$, $B=50^\circ$, and $a=20$. Find C and side b to 0.01.

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04

Triangle ABC has $A=35^\circ$, $B=65^\circ$, and $a=77$. Find C and side b to 0.01.

05

Triangle ABC has $A=50^\circ$, $B=50^\circ$, and $a=24$. Find C and side b to 0.01.

06

Triangle ABC has $A=40^\circ$, $B=70^\circ$, and $a=16$. Find C and side b to 0.01.

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01

Triangle ABC has $A=50^\circ$, $B=50^\circ$, and $a=80$. Find C and side b to 0.01.

$C=180-50-50=80^\circ$. Law of sines: $b=a \sin B/\sin A=80\sin(50^\circ)/\sin(50^\circ)\approx 80.00$.

02

Triangle ABC has $A=45^\circ$, $B=75^\circ$, and $a=56$. Find C and side b to 0.01.

$C=180-45-75=60^\circ$. Law of sines: $b=a \sin B/\sin A=56\sin(75^\circ)/\sin(45^\circ)\approx 76.50$.

03

Triangle ABC has $A=55^\circ$, $B=50^\circ$, and $a=20$. Find C and side b to 0.01.

$C=180-55-50=75^\circ$. Law of sines: $b=a \sin B/\sin A=20\sin(50^\circ)/\sin(55^\circ)\approx 18.70$.

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04

Triangle ABC has $A=35^\circ$, $B=65^\circ$, and $a=77$. Find C and side b to 0.01.

$C=180-35-65=80^\circ$. Law of sines: $b=a \sin B/\sin A=77\sin(65^\circ)/\sin(35^\circ)\approx 121.67$.

05

Triangle ABC has $A=50^\circ$, $B=50^\circ$, and $a=24$. Find C and side b to 0.01.

$C=180-50-50=80^\circ$. Law of sines: $b=a \sin B/\sin A=24\sin(50^\circ)/\sin(50^\circ)\approx 24.00$.

06

Triangle ABC has $A=40^\circ$, $B=70^\circ$, and $a=16$. Find C and side b to 0.01.

$C=180-40-70=70^\circ$. Law of sines: $b=a \sin B/\sin A=16\sin(70^\circ)/\sin(40^\circ)\approx 23.39$.