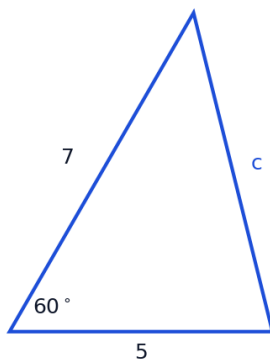


Problems | Name: _____

7.1 Law of Sines and Law of Cosines

7.1.1. Two sides of lengths 5 and 7 enclose a 60° angle. Find the third side.

Two sides and the included angle



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Match the included angle to its opposite side in the cosine rule.

7.1.2. For sides $a=3$, $b=4$, $c=5$, find angle C using the law of cosines.

7.1.3. If $A=30^\circ$, $B=60^\circ$, and $a=6$, find b and C .

Problems | Name: _____

7.2 The Ambiguous Case

7.2.1. For $A = 30^\circ$, $a = 5$, $b = 8$, find the two possible values of C to two decimals.

7.2.2. For $A = 30^\circ$, $a = 4$, $b = 8$, how many triangles exist?

7.2.3. For $A = 30^\circ$, $a = 10$, $b = 8$, explain why only one inverse-sine candidate works.

Problems | Name: _____

7.3 Inverse Trigonometric Functions

7.3.1. Evaluate $\arcsin(\sin(5\pi/6))$.

7.3.2. Evaluate $\arctan(-1)$.

7.3.3. Find $\cos(\arcsin(3/5))$.
