

Goal: Determine which law applies to the given triangle
(law of sines or law of cosine)
Goal: Solve the triangle for the missing measurements using law of sines and cosines
Goal: Determine IF a single triangle exists, NO triangle exists, or if TWO triangles exist

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

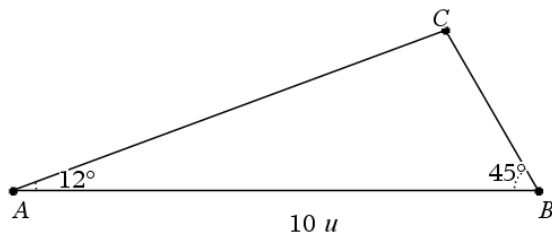
$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

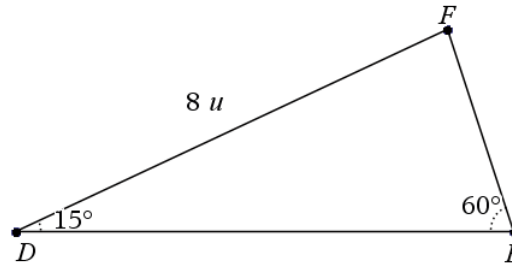
$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

NOTE: NONE OF THE TRIANGLES ARE DRAWN TO SCALE!

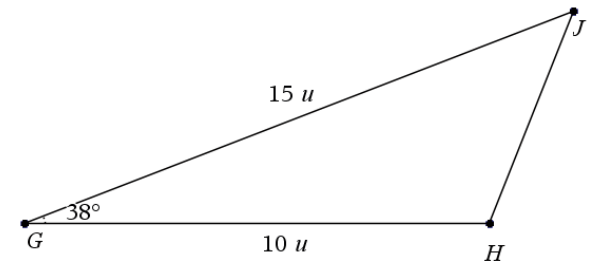
Triangle 1



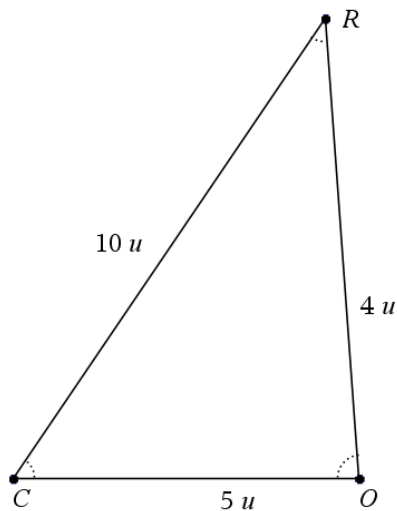
Triangle 2



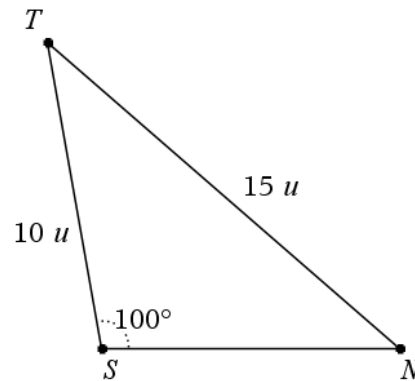
Triangle 3



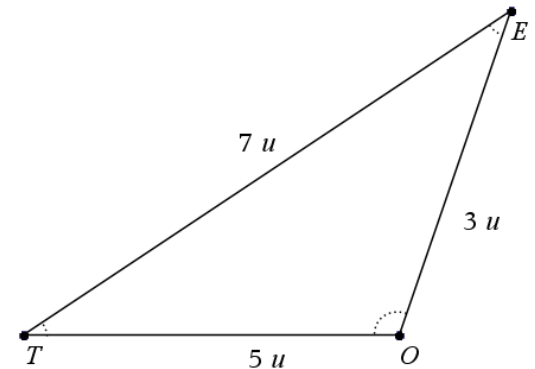
Triangle 4



Triangle 5

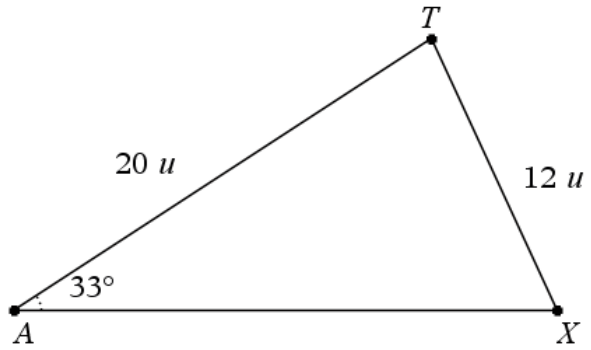


Triangle 6

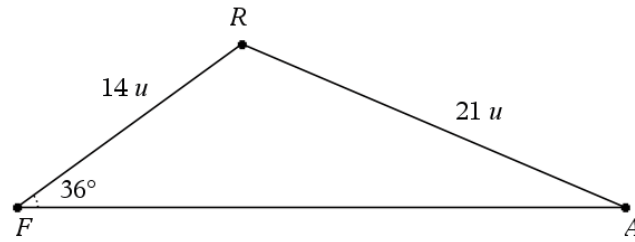


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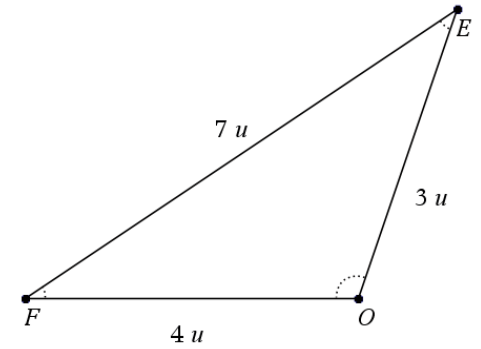
Triangle 7



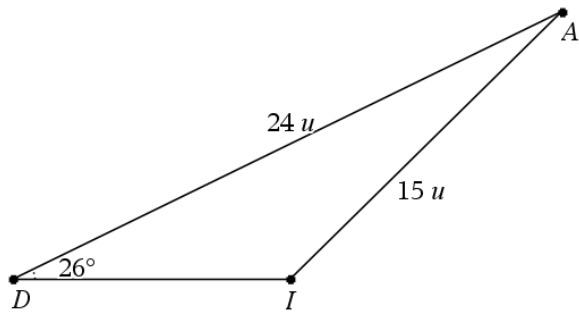
Triangle 8



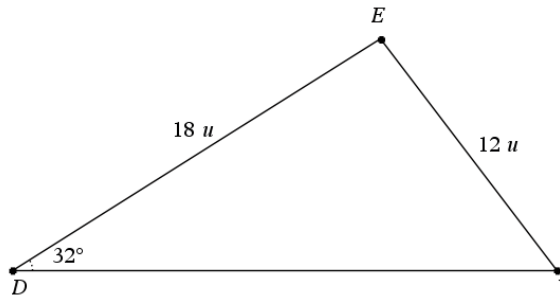
Triangle 9



Triangle 10



Triangle 11



Triangle 12

