

WHAT KIND OF ANGLE NEVER QUILTS?

In order to solve the part specified, match each picture with an appropriate version of the Law of Sines or Cosines.

<p>1) side a T</p> <p>LOS AAS</p>	<p>2) m∠B G</p> <p>LOS SSA</p>	<p>3) m∠B R</p> <p>LOC SSS</p>
<p>4) m∠C A</p> <p>ASA</p>	<p>5) m∠C I</p> <p>LOS SSA</p>	<p>6) side a E</p> <p>n/a</p>
<p>7) side a N</p> <p>LOS ASA</p>	<p>8) m∠C L</p> <p>LOC SSS</p>	<p>9) side a A</p> <p>LOS ASA</p>

<p>1) A.</p> $m\angle A + m\angle B + m\angle C = 180$ $\therefore m\angle C = 180 - (m\angle A + m\angle B)$	<p>9) A. LOC</p> $a^2 = b^2 + c^2 - 2bccosA$ $\therefore a = \sqrt{b^2 + c^2 - 2bccosA}$	<p>E.</p> <p>Not enough information to insure a unique solution</p>
<p>Solving for an angle G. LOS</p> $\frac{\sin B}{b} = \frac{\sin A}{a}$ $\therefore \sin B = \frac{b \sin A}{a}$	<p>I. LOS</p> $\frac{\sin C}{c} = \frac{\sin A}{a}$ $\therefore \sin C = \frac{c \sin A}{a}$	<p>L. LOC</p> $c^2 = a^2 + b^2 - 2ab \cos C$ $\therefore \cos C = \frac{a^2 + b^2 - c^2}{2ab}$
<p>N. LOS</p> <p>first find m∠C, then</p> $\frac{a}{\sin A} = \frac{c}{\sin C}$ $\therefore a = \frac{c \sin A}{\sin C}$	<p>R. LOC</p> $b^2 = a^2 + c^2 - 2accosB$ $\therefore \cos B = \frac{a^2 + c^2 - b^2}{2ac}$	<p>Solving for a side T. LOS</p> $\frac{a}{\sin A} = \frac{b}{\sin B}$ $\therefore a = \frac{b \sin A}{\sin B}$

A	T	R	I	A	N	G	L	E
4	1	3	5	9	7	2	8	6