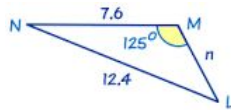


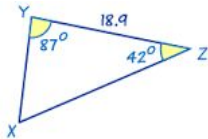
# LAW OF SINES/LAW OF COSINES PRACTICE FOR APRIL 28, 2017

If you are given the following scenarios to start, use Law of Sines

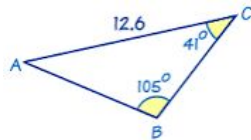
- SSA (AMBIGUOUS CASE!! If you are given this scenario to start, you must check to see how many solutions you will have)



- ASA

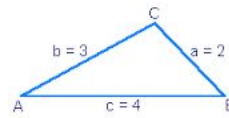


- AAS

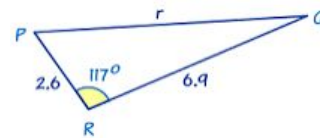


If you are given the following scenarios to start, use Law of Cosines

- SSS



- SAS



**Practice:** For questions 1-6, use the given information to solve the triangle. If two solutions exist, find both solutions.

1.  $A = 36^\circ$ ,  $B = 98^\circ$ ,  $c = 16$
2.  $a = 2$ ,  $b = 4$ ,  $c = 5$
3.  $A = 35^\circ$ ,  $b = 8$ ,  $c = 12$
4.  $A = 25^\circ$ ,  $b = 28$ ,  $a = 18$
5.  $B = 130^\circ$ ,  $c = 10.1$ ,  $b = 5.2$
6.  $A = 150^\circ$ ,  $b = 4.8$ ,  $a = 9.4$

## Solutions:

1.  $C = 46^\circ$ ,  $a = 13.07$ ,  $b = 22.03$
2.  $A = 22.33^\circ$ ,  $B = 49.46^\circ$ ,  $C = 108.21^\circ$
3.  $B = 40.11^\circ$ ,  $C = 104.89^\circ$ ,  $a = 7.12$
4. Two Solutions:
  - a.  $B = 41.1^\circ$ ,  $C = 113.9^\circ$ ,  $c = 38.94$
  - b.  $B = 138.9^\circ$ ,  $C = 16.1^\circ$ ,  $c = 11.81$
5. No Solution
6.  $B = 14.79^\circ$ ,  $C = 15.21^\circ$ ,  $c = 4.93$

