



# Law of Sines, Cosines and Tangents

Name: \_\_\_\_\_

Date: \_\_\_\_\_

TC:10

**Law of Sines**  $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

## Law of Cosines

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

$$b^2 = a^2 + c^2 - 2ac \cos B$$

$$c^2 = a^2 + b^2 - 2ab \cos C$$

## Law of Tangents

$$\frac{a-b}{a+b} = \frac{\tan \left[ \frac{1}{2} (A-B) \right]}{\tan \left[ \frac{1}{2} (A+B) \right]}$$