

PRECALCULUS - Test Tuesday, November 23

All/Mostly Word Problems

Laws will be given to you – one version of each

TEST covers:

- Law of Sines

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

- when given AAS, ASA, SSA
- Law of Cosines
 - $a^2 = b^2 + c^2 - 2bc \cos A$
 - $b^2 = a^2 + c^2 - 2ac \cos B$
 - $c^2 = a^2 + b^2 - 2ab \cos C$
 - when given SAS or SSS

- Area

- Given SAS: ex. $A = \frac{1}{2}ab \sin C$
 - $A = \frac{1}{2}ab \sin C$
 - $A = \frac{1}{2}bc \sin A$
 - $A = \frac{1}{2}ac \sin B$

- Given SSS: Heron's Formula:

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

- where $s = \frac{1}{2}(a+b+c)$

Solving for a triangle means all sides and angles (not area)

Formulas (Given on test)

<p><u>Law of Sines</u></p> $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$	<p><u>Law of Cosines</u></p> $a^2 = b^2 + c^2 - 2bc \cos A$
<p><u>Area of Oblique Triangle</u></p> $A = \frac{1}{2}bc \sin A$	<p><u>Heron's Formula</u></p> $A = \sqrt{s(s-a)(s-b)(s-c)}$