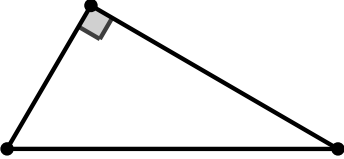
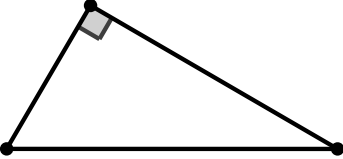
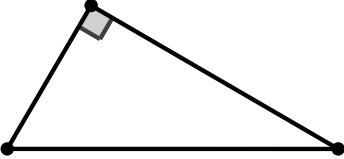


### Unit 9 Glossary Review

#### Right Triangles – 3 Ways to solve for a missing side:

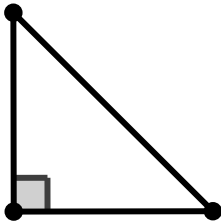
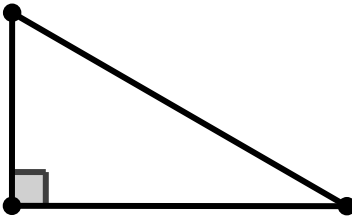
<p><i>Pythagorean Theorem:</i></p>	<p><i>Altitude Rule:</i></p>	<p><i>Leg Rule:</i></p>
<p>Picture:</p> 	<p>Picture:</p> 	<p>Picture:</p> 

**Pythagorean Converse:** *if  $c$  is the hypotenuse and  $a$  &  $b$  are the legs of a right  $\Delta$ , then:*

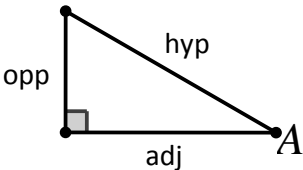
1. If  $a^2 + b^2 < c^2$ , then  $\Delta ABC$  is a \_\_\_\_\_ triangle.
2. If  $a^2 + b^2 = c^2$ , then  $\Delta ABC$  is a \_\_\_\_\_ triangle.
3. If  $a^2 + b^2 > c^2$ , then  $\Delta ABC$  is a \_\_\_\_\_ triangle.

#### Special Right Triangles:

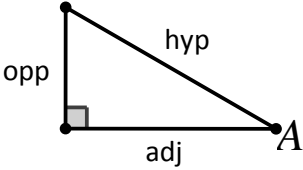
*(Label the sides and angles in these pictures)*

<p><b>45-45-90</b> = Half of a _____</p> 	<p><b>30-60-90</b> = half of a _____</p> 
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## Right Triangle – Trigonometry

	<b>The Sine Ratio:</b> $\sin(A) = \frac{\text{opp}}{\text{hyp}}$	<b>The Cosine Ratio:</b> $\cos(A) = \frac{\text{adj}}{\text{hyp}}$	<b>The Tangent Ratio:</b> $\tan(A) = \frac{\text{opp}}{\text{adj}}$
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## Trigonometry - Finding Angle Measure

	<b>Using Sine Ratio:</b> $m\angle A = \sin^{-1}\left(\frac{\text{opp}}{\text{hyp}}\right)$	<b>Using Cosine Ratio:</b> $m\angle A = \cos^{-1}\left(\frac{\text{adj}}{\text{hyp}}\right)$	<b>Using Tangent Ratio:</b> $m\angle A = \tan^{-1}\left(\frac{\text{opp}}{\text{adj}}\right)$
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\*If  $\sin(A) = \cos(B)$  then what is the relationship between  $\angle A$  and  $\angle B$ ?

**\*Always check that your calculator is in DEGREE mode.**

If  $\sin(30) = 0.5$  on your calculator then you are in DEGREE mode.