

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

Using Trig to Determine Triangle Area

Formula:  $Area = \frac{1}{2}absinC$ , where  $a$  &  $b$  are the sides adjacent to the angle,  $C$ .

Plug in the given information and solve for the area.

<b>Example:</b> $a = 11, b = 4, \text{ \& } m\angle C = 163^\circ$ $Area = \frac{1}{2}absinC$ $= \frac{1}{2}(11)(4) \sin(163^\circ) \leftarrow \text{use } 17^\circ$ $= (11)(2) \sin(163^\circ) = 22(0.2924)$ $Area = 6.4328 = \boxed{6.4}$	1. $a = 8, b = 9, \text{ \& } m\angle C = 139^\circ$
2. $a = 10, b = 7, \text{ \& } m\angle C = 64^\circ$	3. $a = 3, b = 5, \text{ \& } m\angle C = 96^\circ$

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

Using Trig to Determine Triangle Area

Formula:  $Area = \frac{1}{2}absinC$ , where  $a$  &  $b$  are the sides adjacent to the angle,  $C$ .

Plug in the given information and solve for the area.

<b>Example:</b> $a = 11, b = 4, \text{ \& } m\angle C = 163^\circ$ $Area = \frac{1}{2}absinC$ $= \frac{1}{2}(11)(4) \sin(163^\circ) \leftarrow \text{use } 17^\circ$ $= (11)(2) \sin(163^\circ) = 22(0.2924)$ $Area = 6.4328 = \boxed{6.4}$	1. $a = 8, b = 9, \text{ \& } m\angle C = 139^\circ$
2. $a = 10, b = 7, \text{ \& } m\angle C = 64^\circ$	3. $a = 3, b = 5, \text{ \& } m\angle C = 96^\circ$

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

Using Trig to Determine Triangle Area

Formula:  $Area = \frac{1}{2}absinC$ , where  $a$  &  $b$  are the sides adjacent to the angle,  $C$ .

Plug in the given information and solve for the area.

<b>Example:</b> $a = 11, b = 4, \text{ \& } m\angle C = 163^\circ$ $Area = \frac{1}{2}absinC$ $= \frac{1}{2}(11)(4) \sin(163^\circ) \leftarrow \text{use } 17^\circ$ $= (11)(2) \sin(163^\circ) = 22(0.2924)$ $Area = 6.4328 = \boxed{6.4}$	1. $a = 8, b = 9, \text{ \& } m\angle C = 139^\circ$
2. $a = 10, b = 7, \text{ \& } m\angle C = 64^\circ$	3. $a = 3, b = 5, \text{ \& } m\angle C = 96^\circ$

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

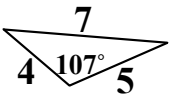
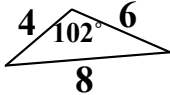

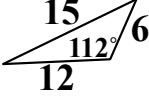
Using Trig to Determine Triangle Area

Formula:  $Area = \frac{1}{2}absinC$ , where  $a$  &  $b$  are the sides adjacent to the angle,  $C$ .

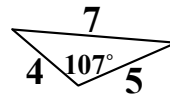
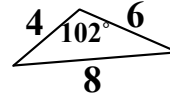
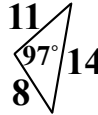
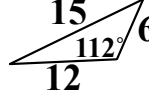
Plug in the given information and solve for the area.

<b>Example:</b> $a = 11, b = 4, \text{ \& } m\angle C = 163^\circ$ $Area = \frac{1}{2}absinC$ $= \frac{1}{2}(11)(4) \sin(163^\circ) \leftarrow \text{use } 17^\circ$ $= (11)(2) \sin(163^\circ) = 22(0.2924)$ $Area = 6.4328 = \boxed{6.4}$	1. $a = 8, b = 9, \text{ \& } m\angle C = 139^\circ$
2. $a = 10, b = 7, \text{ \& } m\angle C = 64^\circ$	3. $a = 3, b = 5, \text{ \& } m\angle C = 96^\circ$


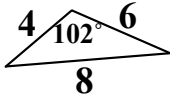

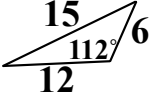
Determine  $a$ ,  $b$  &  $C$  from the triangle (the sides must touch the angle), then plug in your given information and solve for the area.

<p><b>Example:</b></p>  <p><math>a = 4, b = 5, \text{ \&amp; } m\angle C = 107^\circ</math>  <math>Area = \frac{1}{2}(4)(5) \sin(107^\circ)</math>  <math>= 10 \sin(107^\circ) = 10(0.9563)</math>  <math>Area = 9.563 = \boxed{9.6}</math></p>	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 

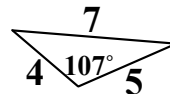
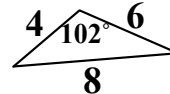
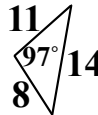
Determine  $a$ ,  $b$  &  $C$  from the triangle (the sides must touch the angle), then plug in your given information and solve for the area.

<p><b>Example:</b></p>  <p><math>a = 4, b = 5, \text{ \&amp; } m\angle C = 107^\circ</math>  <math>Area = \frac{1}{2}(4)(5) \sin(107^\circ)</math>  <math>= 10 \sin(107^\circ) = 10(0.9563)</math>  <math>Area = 9.563 = \boxed{9.6}</math></p>	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 

Determine  $a$ ,  $b$  &  $C$  from the triangle (the sides must touch the angle), then plug in your given information and solve for the area.

<p><b>Example:</b></p>  <p><math>a = 4, b = 5, \text{ \&amp; } m\angle C = 107^\circ</math>  <math>Area = \frac{1}{2}(4)(5) \sin(107^\circ)</math>  <math>= 10 \sin(107^\circ) = 10(0.9563)</math>  <math>Area = 9.563 = \boxed{9.6}</math></p>	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 

Determine  $a$ ,  $b$  &  $C$  from the triangle (the sides must touch the angle), then plug in your given information and solve for the area.

<p><b>Example:</b></p>  <p><math>a = 4, b = 5, \text{ \&amp; } m\angle C = 107^\circ</math>  <math>Area = \frac{1}{2}(4)(5) \sin(107^\circ)</math>  <math>= 10 \sin(107^\circ) = 10(0.9563)</math>  <math>Area = 9.563 = \boxed{9.6}</math></p>	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 