
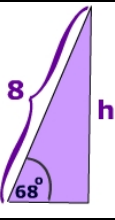
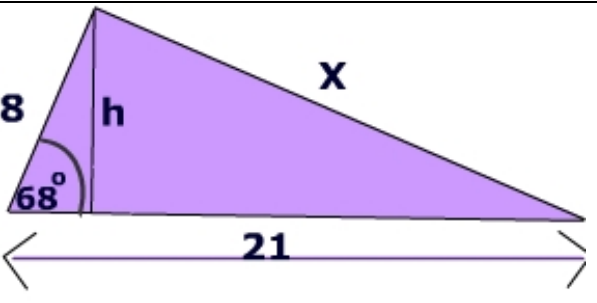
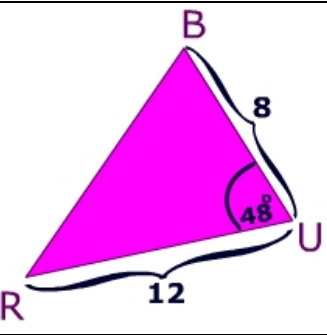
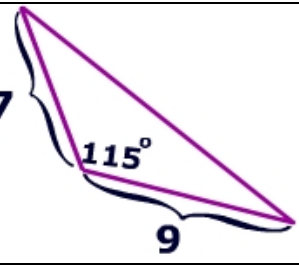


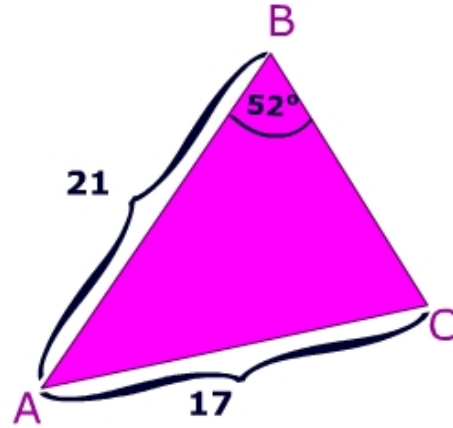
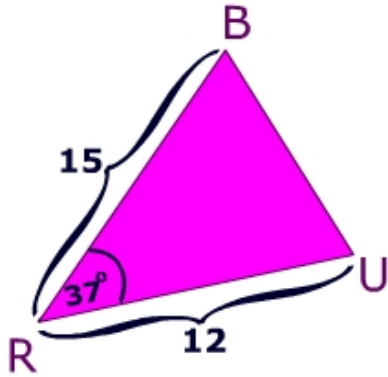
Side Angle Side Formula for Area of A Triangle

Answers @ www.mathwarehouse.com/trigonometry/area/side-angle-side-triangle.html

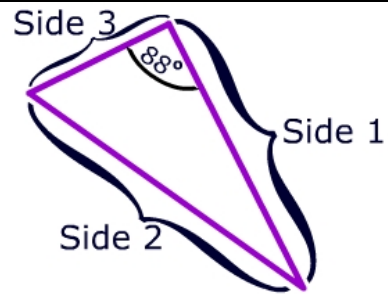
| | |
|--|---|
| <p>1. What is the area of the triangle on the right?</p> |  |
| <p>2. What is h?</p> |  |
| <p>3. What is the height, h, of the triangle on the right?</p> <p>4. What is the base of the triangle on the right?</p> <p>5. What is the area of the triangle on the right?</p> |  |
| <p>6. What is the height, h, of the triangle on the right?</p> <p>7. What is the base of the triangle on the right?</p> <p>8. What is the area of the triangle on the right?</p> |  |
| <p>9. What is the area of the triangle on the right?</p> |  |

10. You only have enough information to find the area of **one** of the triangles below, which one?

11. Calculate the area of that triangle.

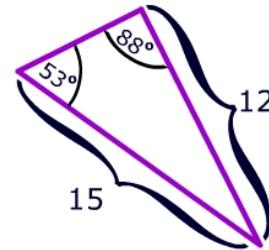


12. Look at the triangle on the right. Which two side lengths would you need to know in order to calculate this triangle's area? _____

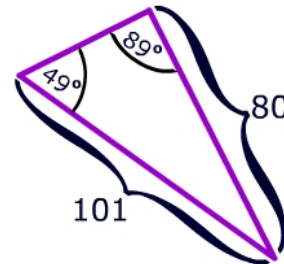


13. What is the measurement of the missing angle?

14. What is the area of the triangle?

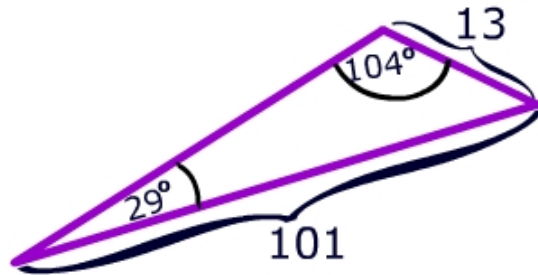


15. Find the area of the triangle on the right.

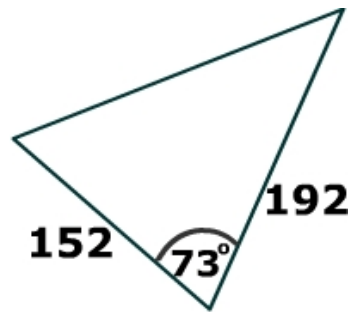


Use the Side Angle Side Formula (SAS) to calculate the area of the triangles below . (Not all triangles are drawn to scale)

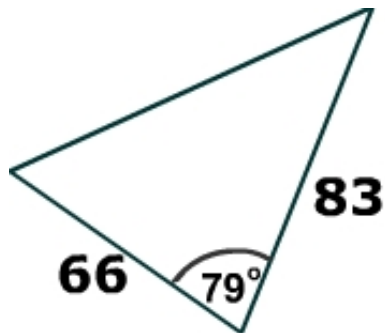
16.



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TEST THE THEOREM OUT!!!

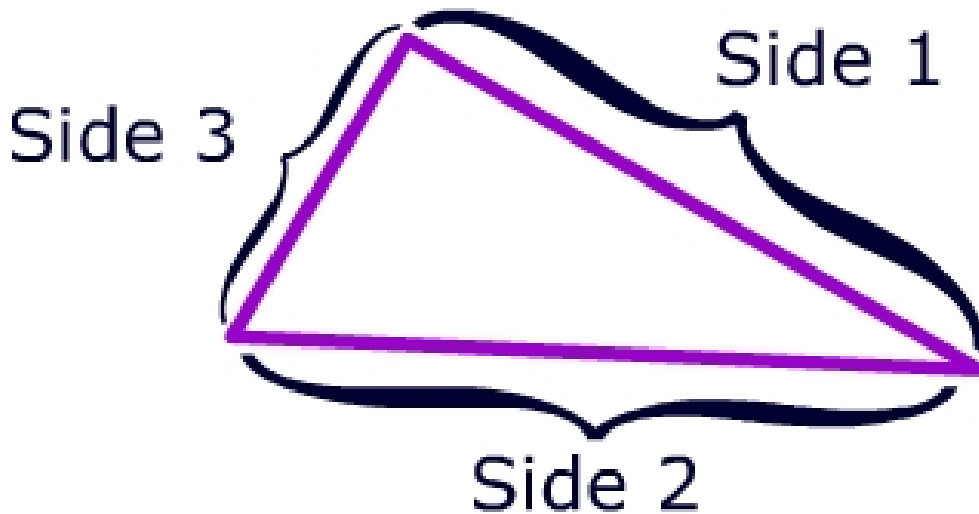
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| Group Members |
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Task #1) Use a ruler to measure the length of each side of the triangle below then record the side lengths in the table at the bottom.

Task #2) Use a protractor to measure the angle included by each pair of sides then record these measurements in the table at the bottom.

Task #3) Find the area for all scenarios.

| Side Length | Side Length | Angle Measurement | Area = $\frac{1}{2}$ side1*side2* sine(included angle) |
|--------------|--------------|--------------------------------|---|
| Side 1: ____ | Side 2: ____ | Angle between Side 1 & 2: ____ | Area: ____ |
| Side 2: ____ | Side 3: ____ | Angle between Side 2 & 3: ____ | Area: ____ |
| Side 3: ____ | Side 1: ____ | Angle between Side 3 & 1: ____ | Area: ____ |



Given your measurements and results above what can you conclude about the SAS formula for finding area?
