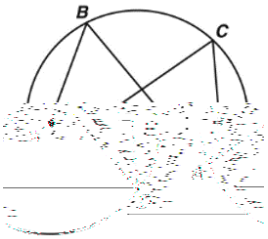
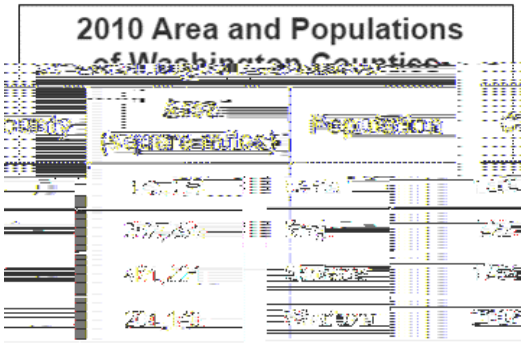
1. Points A, B, C, and D are consecutive points on Circle *W* as shown. Which angle must be congruent to ?



A. B.

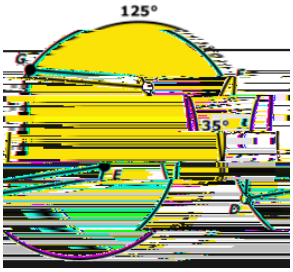
C. D.

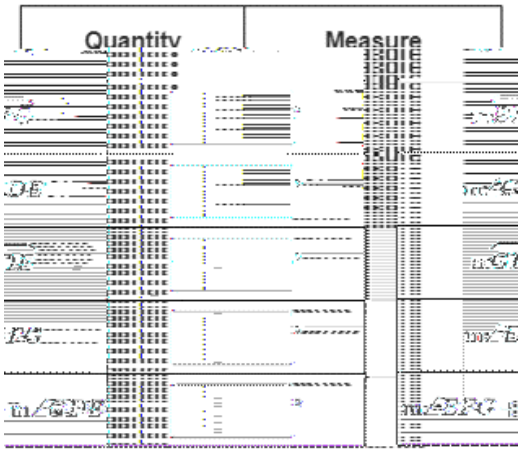
2. In the state of Washington, a county is considered rural if it has a population density less than 100 persons per square mile. Based on the information in the table, which county can be considered rural?



King
Benton
Spokane
Whatcom

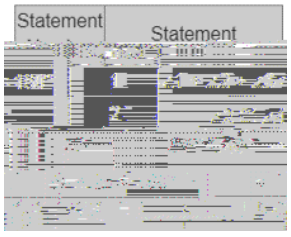
3. Quadrilateral *DEFG* is inscribed in a circle as shown. The measures of two minor arcs of the circle are shown. Complete the table with the correct measures to prove that angles *EFG* and *GDE* are supplementary.

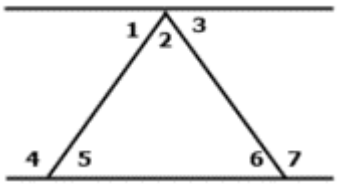




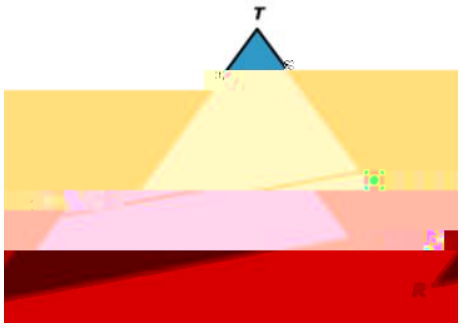
4. Sheri wants to prove that the sum of the interior angles in a triangle is 180^0. To do this, she sketched out a pair of parallel line segments and formed a triangle in between those lines. She then wrote the first few statements to try to prove this. Select *ALL* of the statements that must be true in the proof.

Statement 1
Statement 2
Statement 3
Statement 4





5. In the figure below, *RTV* is shown with . Marisa thinks that the measure of is because 8 – 3 = 5 and 6 – 5 = 1. Roberto thinks that the measure of is some other number. Find the correct measure of .



6. A square pyramid is sliced by a plane that passes through the pyramid's top vertex and is perpendicular to the pyramid's base. What is the resulting cross section?

A. a triangle B. a trapezoid C. a pentagon D. a square

7. A rectangle is shown below. The rectangle is rotated 360^0 about the line . What three-dimensional shape is made by this rotation?

12. A diameter of a circle has endpoints of (-5, 6) and (-5, -2). What is the equation of this circle?

A. $(x + 5)^2 + (y - 2)^2 = 16$

B. $(x - 5)^2 + (y + 2)^2 = 4$

C. $(x + 5)^2 + (y - 2)^2 = 4$

D. $(x + 5)^2 + (y - 2)^2 = 64$

13. Consider *MNO*, shown in the diagram. Determine whether each statement describes *MNO*. Select Correct or Incorrect for each statement.

14. A rectangle is drawn around a regular hexagon so that it forms four congruent right triangles in the corners of the rectangle. How much larger is the area of the rectangle than the area of the hexagon?

A. 86.6 square cm

B. 100.0 square cm

C. 111.8 square cm

D. 173.2 square cm

15. The figure below shows quadrilateral *PQRS* inscribed in a circle. Which procedure can be used to determine the measure of angle *P*?

A. Add the expressions together and set them equal to 360, solve for *x*, and then substitute the value for *x* back into $3x - 10$.

B. Add the expressions together and set them equal to 180, solve for *x*, and then substitute the value for *x* back into $3x - 10$.

C. Subtract the expressions and set them equal to 180, solve for *x*, and then substitute the value for *x* back into $3x - 10$.

D. Set the expressions equal to one another, solve for *x*, and then substitute the value for *x* back into $3x - 10$.