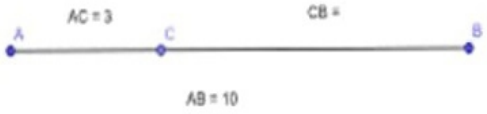
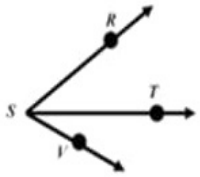
Geometry

Module 1 – Exam

1. What is the measure of $\overline{CB}$?



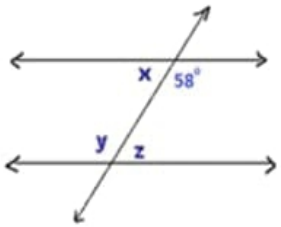
2. If $\angle RST = 30^\circ$ and $\angle TSV = 15^\circ$, what is $\angle RSV$?



3. True or False: "All squares are similar."

4. True or False: "All rectangles are similar."

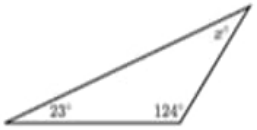
5. Two parallel lines are cut by a transversal. What is the measure of $\angle y$?



6. How many right angles are in a rectangle?

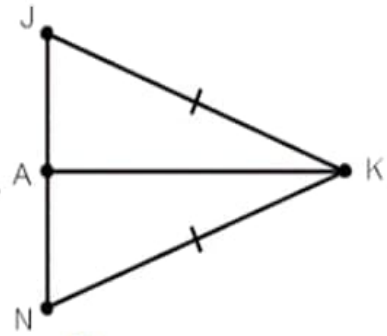
7. How many right angles are in a right triangle?

8. What is the measure of angle *x*?

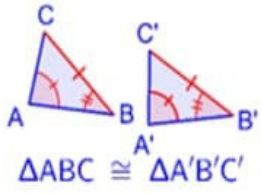


9. Is the following line inductive or deductive? "Obtuse triangles have exactly one obtuse angle."

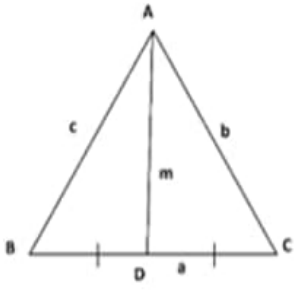
10. Given: $\overline{KA} \perp \overline{JN}$ Prove: $\Delta KJA \cong \Delta KNA$



11. What is the principle by which you know that $\overline{CA} \cong \overline{C'A'}$? (Don't do a proof, just name the principle.)



12. Given: $\overline{AD}$ is both a median and an altitude.
Prove: $\Delta ADB \cong \Delta ADC$



Answers:

1. $\overline{CB} = 7$
2. $\angle RSV = 45^{\circ}$
3. **True**
4. **False**
5. $\angle y = 58^{\circ}$ **(Alternate Interior Angles)**
6. **4**
7. **1**
8. $\angle x = 33^{\circ}$
9. **Deductive**
10. **Proof: ΔKJA ≅ ΔKNA**

1. $\overline{KA} \perp \overline{JN}$	Given
2. $\angle KAJ \cong \angle KAN$	Definition of Perpendicularity
3. $\overline{KA} \cong \overline{KA}$	Identity Property
4. **ΔKJA ≅ ΔKNA**	SAS Postulate

11. **CPCTC**
12. . **Proof: ΔADB ≅ ΔADC**

1. $\overline{AD}$ is an altitude	Given
2. $\angle ADB \cong \angle ADC$	Definition of Perpendicularity
3. $\overline{AD} \cong \overline{AD}$	Identity Property
4. **ΔADB ≅ ΔADC**	SAS Postulate