Always-Sometimes-Never Exercises

Write A, S, or N to indicate your choice.

A 1. If a conditional is false, then its converse is __?__ false.
   2. Two vertical angles are __?__ adjacent.
   3. An angle __?__ has a complement.
   4. Two parallel lines are __?__ coplanar.
   5. Two perpendicular lines are __?__ both parallel to a third line.
   6. A scalene triangle is __?__ equiangular.
   7. A regular polygon is __?__ equilateral.
   8. A rectangle is __?__ a rhombus.
   9. If $\overline{RS} \cong \overline{MN}$, $\overline{ST} \cong \overline{NO}$, and $\angle R \cong \angle M$, then $\triangle RST$ and $\triangle MNO$ are __?__ congruent.
  10. The HL method is __?__ appropriate for proving that two acute triangles are congruent.
  11. If $AX = BX$, $AY = BY$, and points A, B, X, and Y are coplanar, then $\overline{AB}$ and $\overline{XY}$ are __?__ perpendicular.

B 12. The diagonals of a trapezoid are __?__ perpendicular.
  13. If a line parallel to one side of a triangle intersects the other two sides, then the triangle formed is __?__ similar to the given triangle.
  14. If $\triangle JKL \cong \triangle NET$ and $\overline{NE} \perp \overline{ET}$, then it is __?__ true that $LJ < TE$.
  15. If $AB + BC > AC$, then A, B, and C are __?__ collinear points.
  16. A triangle with sides of length $x - 1$, x, and x is __?__ an obtuse triangle.

Completion Exercises

Complete each statement in the best way.

A 1. If $\overrightarrow{YW}$ bisects $\angle XYZ$ and $m \angle WYX = 60$, then $m \angle XYZ = $ __?__.
   2. The acute angles of a right triangle are __?__.
   3. A supplement of an acute angle is a(n) __?__ angle.
   4. Adjacent angles formed by __?__ lines are congruent.
   5. The measure of each interior angle of a regular pentagon is __?__.
   6. In $\triangle ABC$ and $\triangle DEF$, $\angle A \cong \angle D$ and $\angle B \cong \angle E$. $\triangle ABC$ and $\triangle DEF$ must be __?__.

B 7. When the midpoints of the sides of a rhombus are joined in order, the resulting quadrilateral is best described as a __?__.
   8. If $\dfrac{r}{s} = \dfrac{t}{u}$, then $\dfrac{r + s}{t + u} = \dfrac{?}{?}$.
   9. The ratio of the measures of the acute angles of a right triangle is $3:2$. The measure of the smaller acute angle is __?__.