Triangles
Medians, Altitudes, & Bisectors

1. If K is a mid point of \( ST \), then \( RK \) is called a(n) __________________ .
2. If \( RK \perp ST \), then \( RK \) is called a(n) __________________ of \( \triangle RST \).
3. If K is the midpoint of \( ST \) and If \( RK \perp ST \), then \( RK \) is called a(n) __________________ of \( ST \).
4. If \( RK \) is both an altitude and a median of \( \triangle RST \), then:
   A. \( \triangle RSK = \triangle RTK \) by ____.
   B. \( \triangle RST \) is a(n) ______ triangle.
5. If R is on the perpendicular bisector of \( ST \), then R is equidistant from ____ and ____.
   Thus ____ = ____.
6. Refer to \( \triangle ABC \) and name each of the following.
   a. a median of \( \triangle ABC \)
   b. an altitude of \( \triangle ABC \)
   c. a bisector of an angle of \( \triangle ABC \)

Assume G is the Centroid of \( \triangle ABC \). Complete each statement.
7. If \( BE = 9 \), BG = ____ .
8. If \( AD = 24 \), GD = ____ .
9. If \( AG = 10 \), GD = ____ .
10. If \( AD = 24 \), GD = ____ .

If given this information, \( DE = 3.9 \), \( EF = 2.8 \), and \( ME = 6.2 \), determine the length of the following:

11. The distance of PE.
12. If \( MF = 4.6 \), Find the distance of \( FN \).
13. The distance of NE
Geometry

Given the \( \triangle RST \) as shown in the figure on the right. If \( \overline{AZ} = 2.3 \), find;

14. \( \overline{QA} \)
15. and angle \( \cong \) to \( \angle QSA \)
16. \( RS = 12 \) what is the distance of \( ST \).

Refer to the diagram on the right that shows a triangle and a point of concurrency \( P \) to solve the following problems.

17. Find the values of \( x \) and \( y \).
18. IF \( AB = 6 \), then \( BP = ____ \) and \( AP = ____ \).
19. IF \( AB = 7 \), then \( BP = ____ \) and \( AP = ____ \).
20. If \( PB = 1.9 \), then \( AP = ____ \) and \( AB = ____ \).