



**Across**

1. if a point is equidistant from the sides of an  $\angle$ , it lies on the bisector of the angle
3. the point of concurrency of the medians of a  $\Delta$  is  $\frac{2}{3}$  the distance from the vertex to the midpoint of the opposite side of the  $\Delta$
6. type of proof that begins by assuming the opposite of the prove statement
10. segment in a  $\Delta$  that connects the vertex to the midpoint of the opposite side of a  $\Delta$
11. segment in a  $\Delta$  that connects the midpoints of two sides of the  $\Delta$
14. point of intersection of three or more lines, segments, or rays
15. the point of concurrency of the perpendicular bisectors of a  $\Delta$  is equidistant from the vertices of the  $\Delta$
17. hinge theorem converse
18. line, segment, or ray that intersects a segment at its midpoint AND is perpendicular to that segment

**Across**

19. if a point is equidistant from the endpoints of a segment, then it lies on the perpendicular bisector of the segment
20. the sum of the lengths of any two sides of a  $\Delta$  must be greater than the length of the third

**Down**

2. the point of concurrency of the altitudes of a  $\Delta$
3. the point of concurrency of the perpendicular bisectors of a  $\Delta$
4. if a point is on the perpendicular bisector of a segment, then it is equidistant from the endpoints of the segment
5. hinge theorem
7. the altitudes of a  $\Delta$  are always \_\_\_\_\_.
8. height of a  $\Delta$
9. the point of concurrency of the angle bisectors of a  $\Delta$
12. the point of concurrency of the medians of a  $\Delta$
13. the length of the midsegment of a  $\Delta$  is \_\_\_\_\_ the length of the third side of the  $\Delta$
16. the midsegment of a  $\Delta$  is \_\_\_\_\_ to the third side of the  $\Delta$