



GEOMETRY

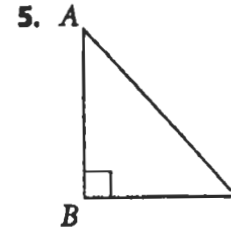
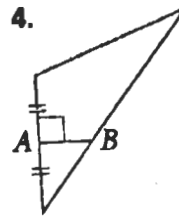
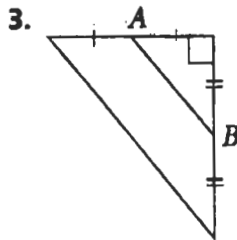
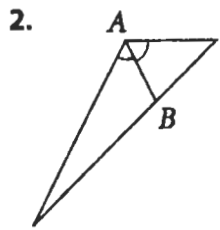
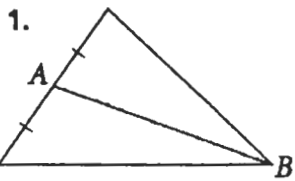
Section 4.8 - Page 230-231

NAME _____

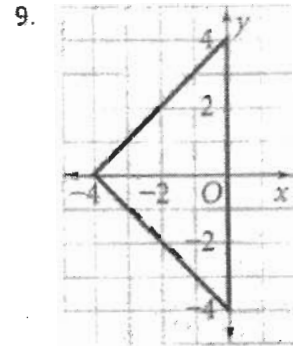
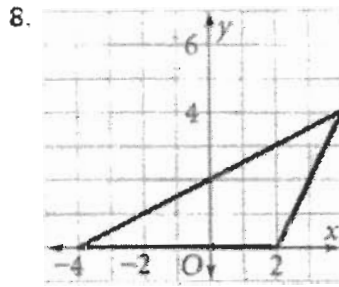
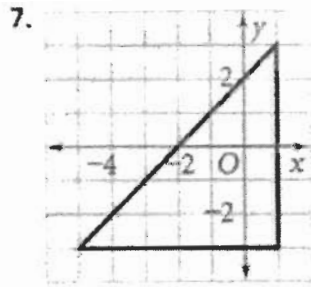
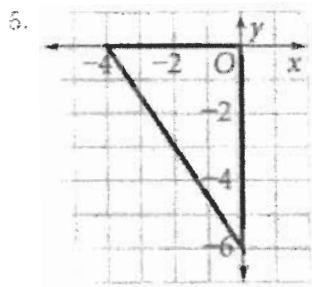
HOUR _____

DATE _____

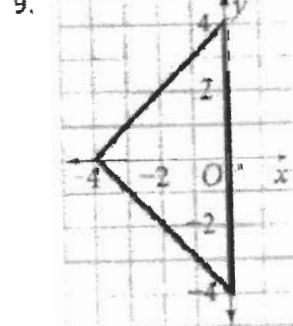
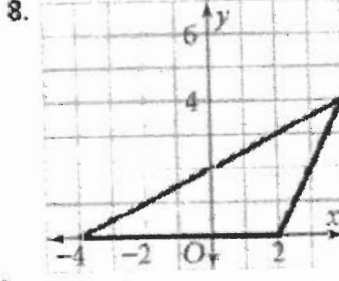
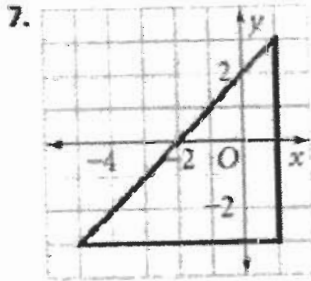
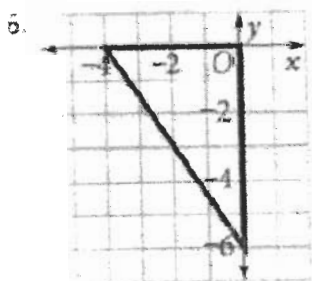
Is \overline{AB} a perpendicular bisector, an angle bisector, an altitude, a median, or none of these?



For each triangle, give the coordinates of the point of concurrency of
(a) the perpendicular bisectors of the sides

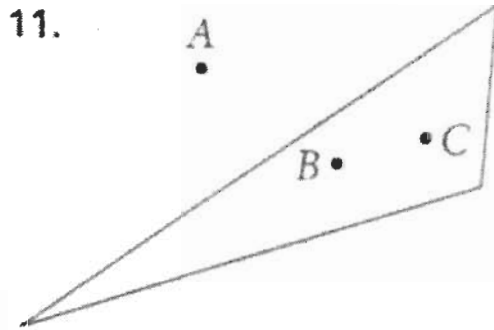
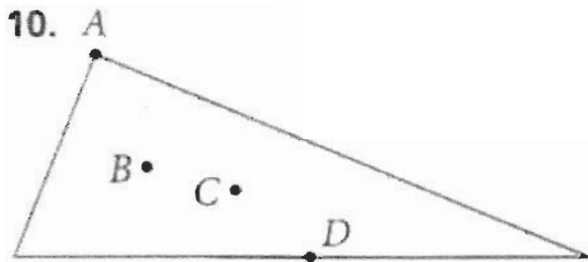


(b) the altitudes.



The points of concurrency for the lines and segments listed in I–IV have been drawn on the triangles. Match the points with the lines and segments.

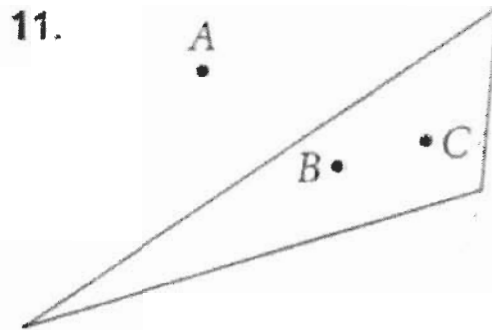
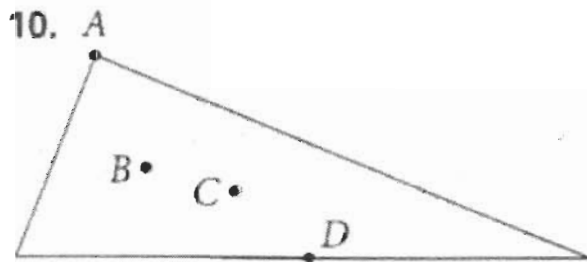
I. perpendicular bisectors of sides



D

The points of concurrency for the lines and segments listed in I–IV have been drawn on the triangles. Match the points with the lines and segments.

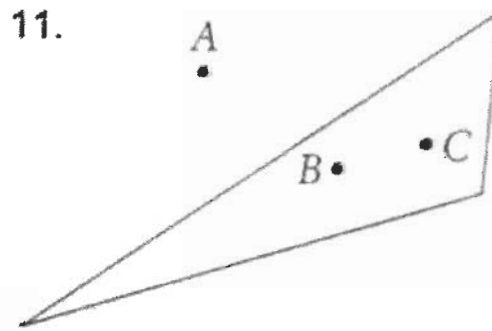
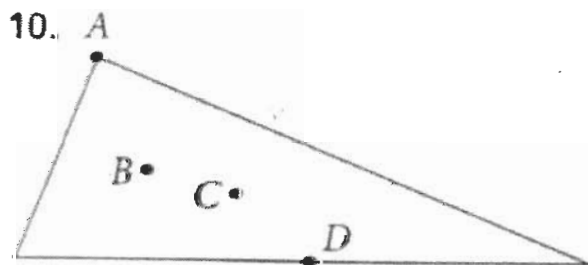
II. angle bisectors



D

The points of concurrency for the lines and segments listed in I–IV have been drawn on the triangles. Match the points with the lines and segments.

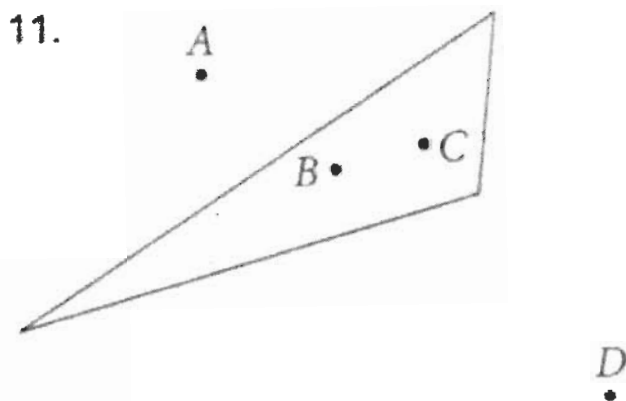
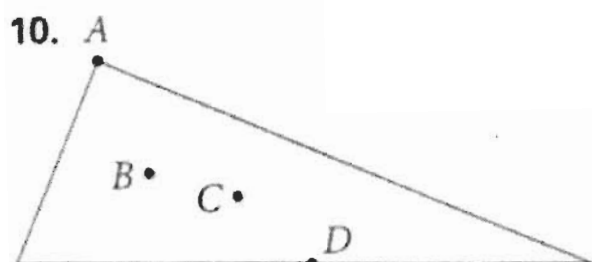
III. medians



D

The points of concurrency for the lines and segments listed in I–IV have been drawn on the triangles. Match the points with the lines and segments.

IV. altitudes



12. **History of Mathematics** Leonard Euler proved in 1765 that for any triangle, three of the four points of concurrency are collinear. The line that contains these three points is known as *Euler's Line*. Refer to Exercises 10 and 11 to determine which point of concurrency does *not* lie on Euler's Line.

13. **Park Design** Where should park officials place a drinking fountain in Altgeld Park so that it is equidistant from the tennis court, the playground, and the volleyball court?

