Name: _____

The Distance and Midpoint Formulas

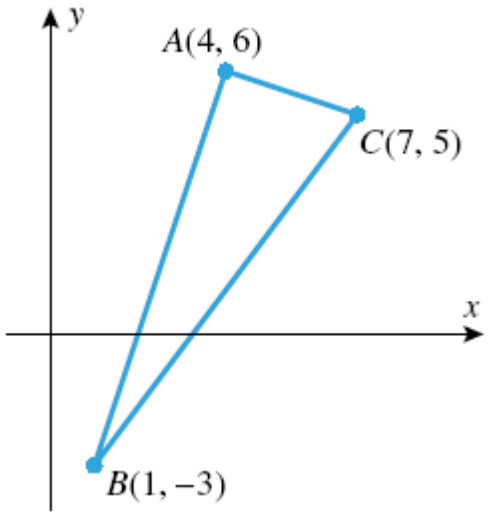
1) If Q(0, 1) is equidistant from P(5, −3) and R(*x*, 6), find the values of *x*.

2) Find the values of *y* for which the distance between the points P(2, − 3) and Q(10, *y*) is 10 units.

3) Find the point on the *x*-axis which is equidistant from (2, −5) and (−2, 9).

4) Use the Midpoint Formula to find the three points that divide the line segment joining (-8,-12) and (12, 8) into four equal parts.

5) Show that the points *A*(4, 6), *B*(1,−3), and *C*(7, 5) are vertices of a right triangle.



6) Find the distance between each couple of points plotted on the given Cartesian system