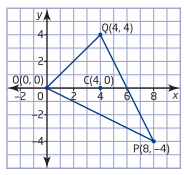
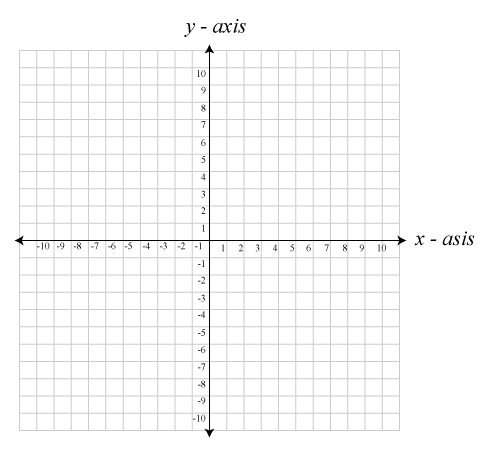
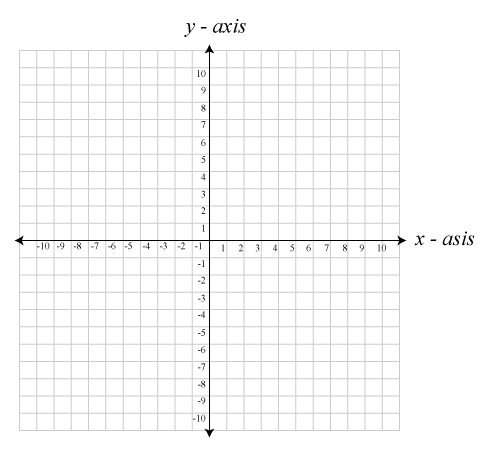
**Properties of Triangles**

**Ex1.** a) Verify that C(4,0) is the centroid of OPQ triangle.

b) Verify that the centroid divides each median in a 2:1 ratio.

**Ex2.** The line segment joining the midpoints of two sides of a triangle is parallel to the third side and half its length**.** Verify **algebraically** this property in triangle A, R and T. Include a labelled diagram as part of your solution.

**Ex3.** A triangle has vertices M, T, and H

**i) Verify** that:

**a.** Triangle is a right triangle.

**b.** The median from the right angle to the hypotenuse is half as long as the hypotenuse.

**ii) Calculate** the perimeter.

**iii) Calculate** the area.