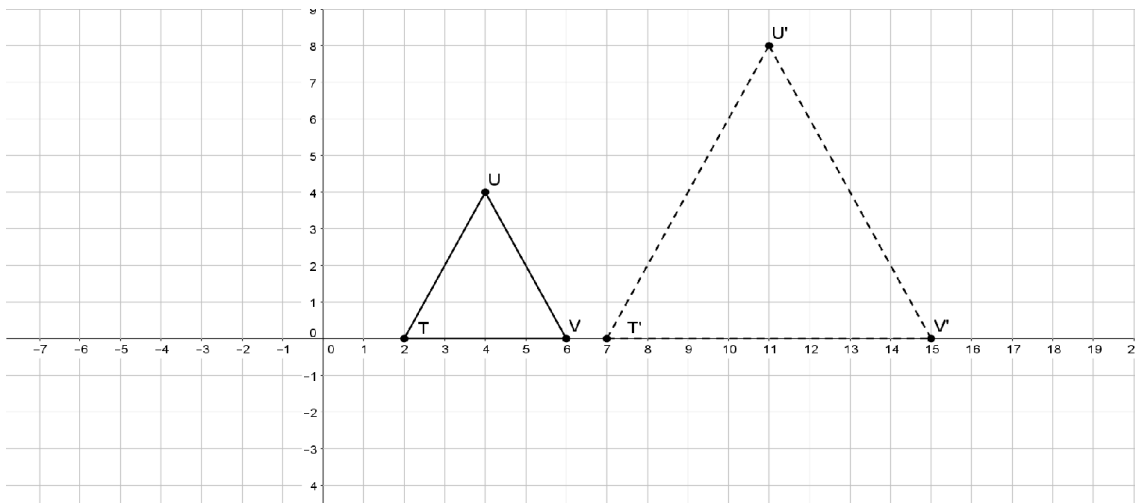1.   ΔPQR has the following vertices: P (2, 4), Q (10, 3), R (7, 12). Dilate ΔPQR about the origin with a scale factor of $\frac{1}{2}$. Identify the scale of the axes below. Show both triangles in the coordinate plane below. Label each vertex with its name and coordinates.
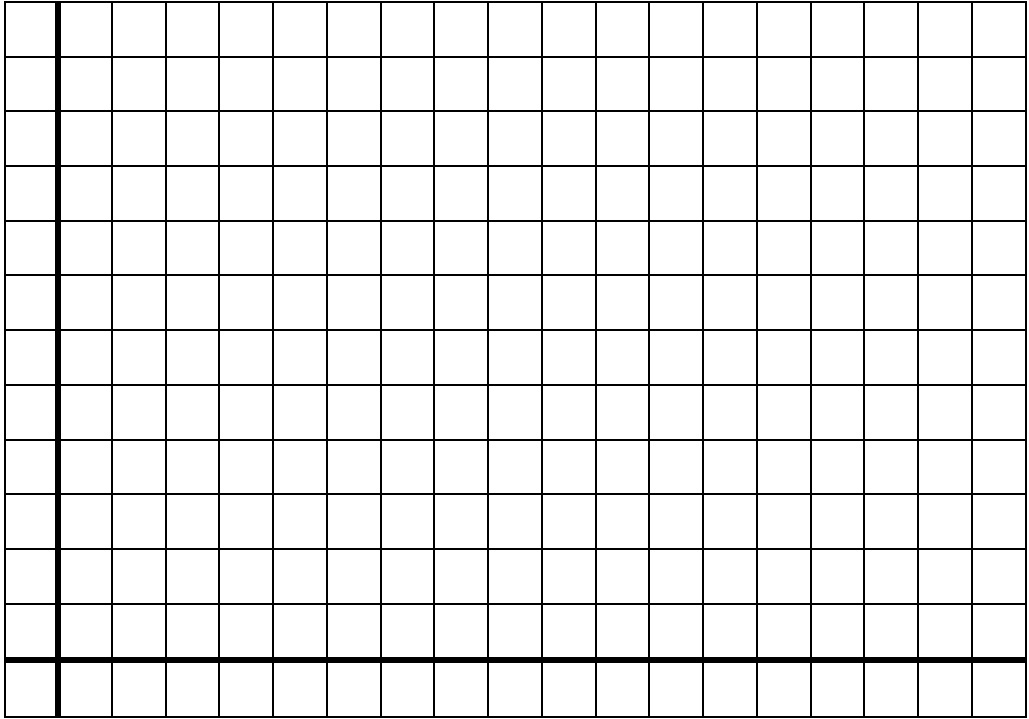
2. Is ΔT'U'V' a dilation about the origin of ΔTUV. Explain why or why not.

3. Hexagon *BCKMHP* has the following vertices:

B (-2, 3), C (2, 3), K (4, 0), M (2, -3), H (-2, -3) P (-4, 0)

Dilate *BCKMHP* about the origin with a scale factor of 2.5. Identify the scale of the axes below.
Show both hexagons in the coordinate plane below. Label each vertex with its name and coordinates.