

1) $\triangle ABC$ has vertices $A(3,4)$, $B(-5,2)$, and $C(1,-4)$. Determine an equation for

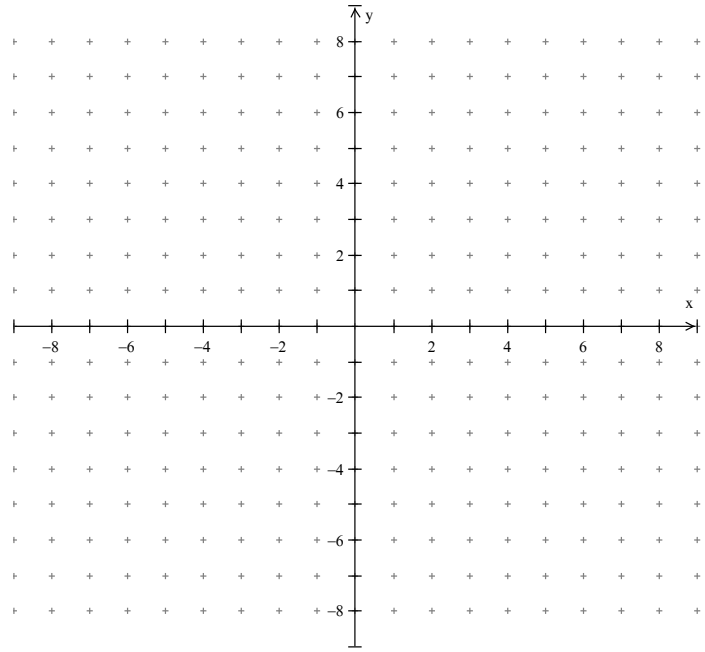
a) the median from C to AB

b) the altitude from A to BC

c) the right bisector of AC

2) Draw $\triangle JKL$ with vertices $J(-6, 4)$, $K(-4, -5)$, and $L(6, 1)$.

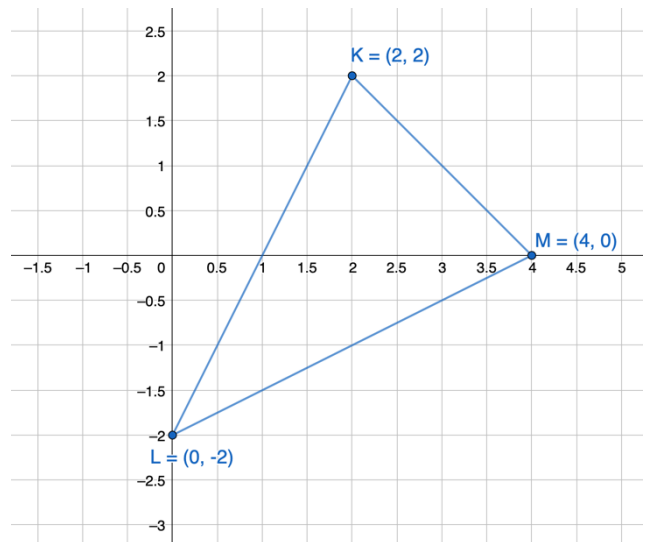
a) Draw the median from vertex J . Then, find an equation in slope y -intercept form for this median.



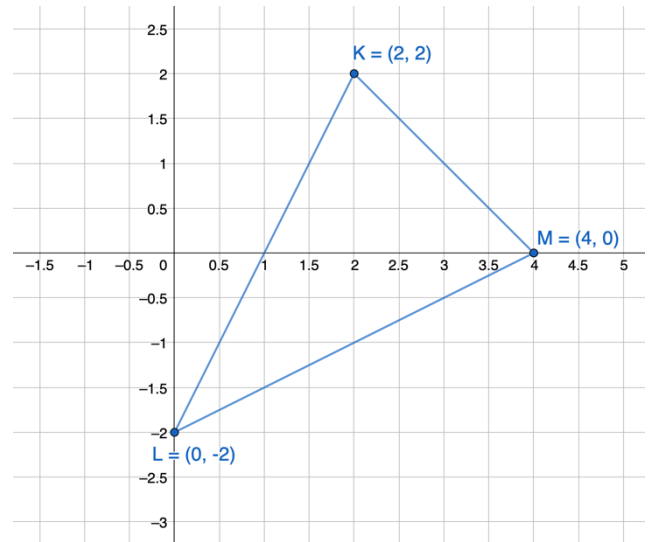
b) Draw the right bisector of KL . Then, find an equation in slope y -intercept form for this right bisector.

3) $\triangle KLM$ has vertices $K(2,2)$, $L(0, -2)$, and $M(4,0)$. Draw and determine the equation of...

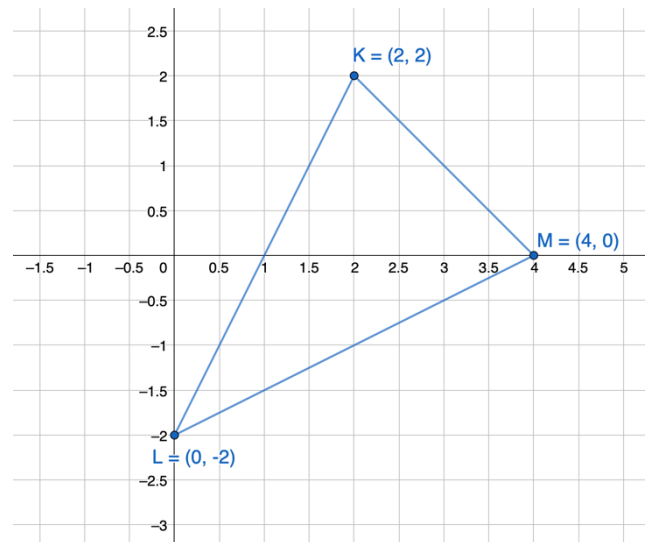
a) the median from vertex K



b) the right bisector of KL



c) The altitude from vertex K



4) A triangle has vertices $A(-4, 2)$, $B(-2, -6)$, and $C(6, -2)$.

a) Determine the length of the median from vertex A .

b) Determine an equation in the form $y = mx + b$ for the median from vertex A .

5) Determine an equation for the right bisector of the line segment with endpoints D(-3, 5) and M(7, -9).

Answers

1)a) $y = -\frac{7}{2}x - \frac{1}{2}$ b) $y = x + 1$ c) $y = -\frac{1}{4}x + \frac{1}{2}$

2)a) $y = -\frac{6}{7}x - \frac{8}{7}$ b) $y = -\frac{5}{3}x - \frac{1}{3}$

3)a) $x = 2$ b) $y = -\frac{1}{2}x + \frac{1}{2}$ c) $y = -2x + 6$

4)a) $\sqrt{72} = 6\sqrt{2}$ b) $y = -x - 2$

5) $y = \frac{5}{7}x - \frac{24}{7}$