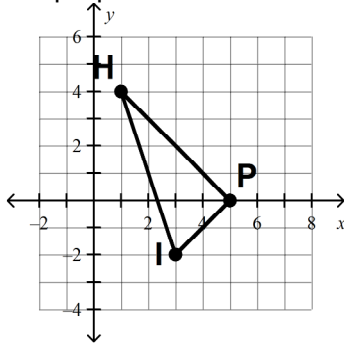


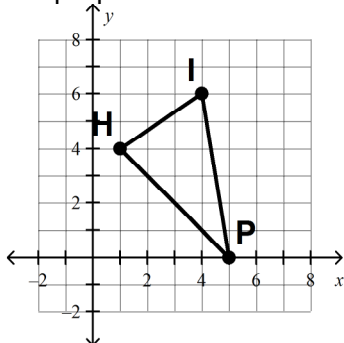
WS Writing equations of lines of special segments of triangles

- 1 Given the triangle below find the equation of the perpendicular bisector of side IP.



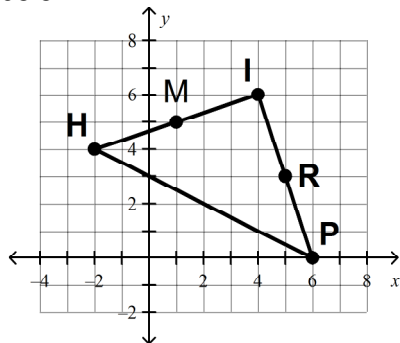
- A $y = x - 5$ B $y = -3x + 7$
 C $y = -x + 3$ D $y = -x - 1$

- 2 Given the triangle below find the equation of the perpendicular bisector of side HP.



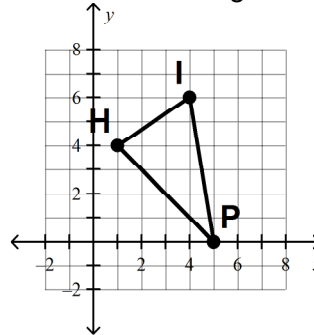
- A $y = x - 1$ B $y = -x + 5$
 C $y = -x + 1$ D $y = \frac{1}{6}x + 2$

- 3 Which equation contains \overline{MR} in the triangle below.



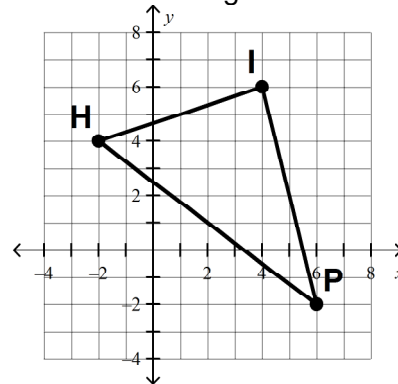
- A $y = \frac{1}{2}x + 3$ B $y = \frac{-1}{2}x + 5.5$
 C $y = \frac{-1}{2}x + 3$ D $y = -2x + 5.5$

- 4 Given the triangle below find the equation of the line containing the altitude from vertex I.



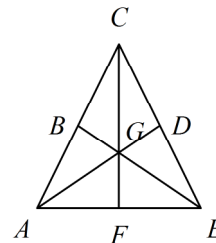
- A $y = x - 1$ B $y = x + 2$
 C $x = 4$ D $y = \frac{2}{3}x + 3\frac{2}{3}$

- 5 Given the triangle below find the equation of the line containing the median from vertex I.



- A $y = \frac{1}{3}x + 4\frac{2}{3}$ B $y = \frac{5}{2}x + 2$
 C $y = \frac{-2}{5}x - 4$ D $y = \frac{5}{2}x - 4$

- 6 In $\triangle ABC$, G is the centroid and $BE = 18$. Find BG and GE .

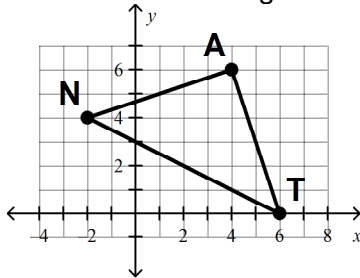


- A $BG = 6, GE = 12$ B $BG = 9, GE = 9$
 C $BG = 12, GE = 6$ D $BG = 4\frac{1}{2}, GE = 13\frac{1}{2}$

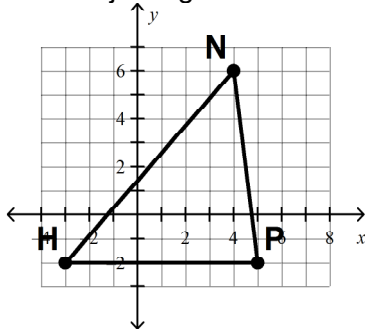
7 Which equation describes a line that has a y-intercept of 5 and passes through the point $(-6,2)$?

- A $y = \frac{1}{2}x + 5$ B $y = -\frac{1}{2}x + 5$
 C $y = 2x + 5$ D $y = -x + 5$

8 Write the equation that contains altitude to vertex A in the triangle below.

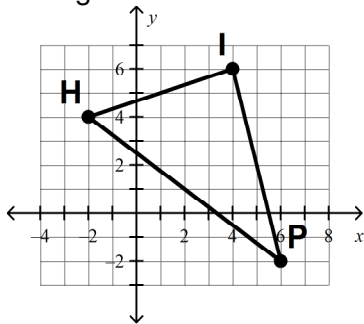


9 Given the triangle below find the length of the median joining sides \overline{HN} and \overline{PN} .

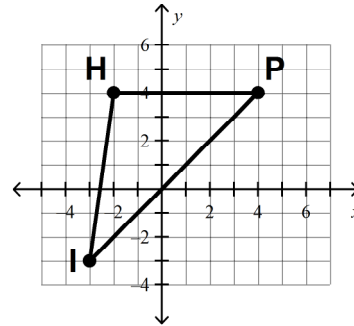


- A $\sqrt{8}$ or $2\sqrt{2}$ B 8
 C 4 D 3.5

10 Given the triangle below find the length of the midsegment from side \overline{HP} and \overline{IP} .

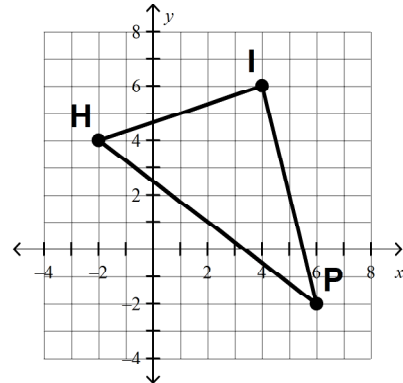


11 Given the triangle below find the slope of the line containing the midsegment from side \overline{HI} and \overline{IP} .



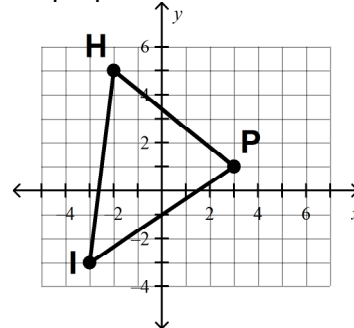
- A 1 B 2 C $\frac{1}{2}$ D 0

12 Given the triangle below find the length of the median from vertex H.



- A $\sqrt{45}$ or $3\sqrt{5}$ B $\sqrt{53}$
 C 3 D 9

13 Given the triangle below find the equation of the perpendicular bisector of \overline{IP} .



- A $x = 0$ B $y = \frac{-2}{3}x - 1$
 C $y = \frac{2}{3}x - 1$ D $y = \frac{-3}{2}x - 1$