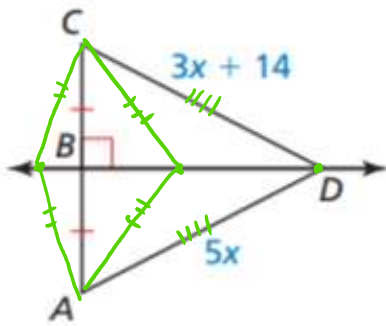


## Quiz Review!

Find the indicated measure.



$$AD = 35$$

$$3x + 14 = 5x$$

$$14 = 2x$$

$$7 = x$$

$$5x; x=7$$

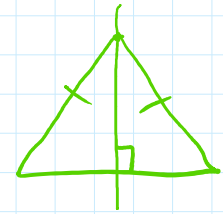
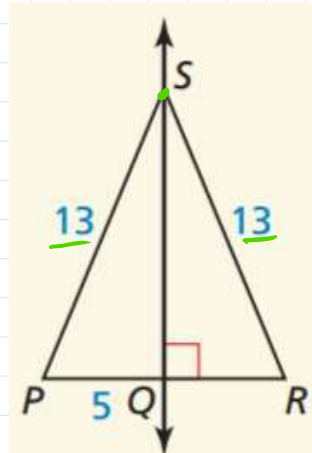
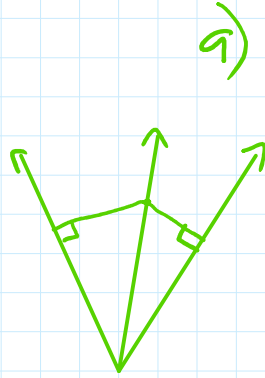
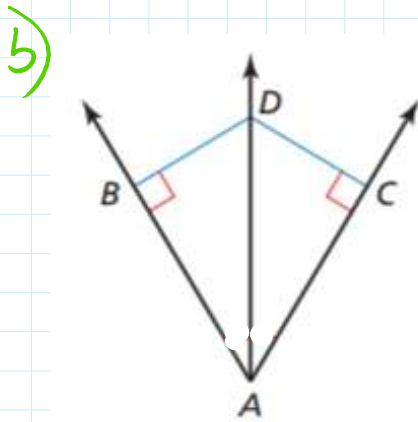
$$5 \cdot 7$$

$$35$$

Tell whether the information in the diagram allows you to conclude that (a) point Q lies on the perpendicular bisector of  $\overline{PR}$  and/or

.....  $\overline{AD}$  .....  $\angle BAC$

that (b)  $\overrightarrow{AD}$  bisects  $\angle BAC$ .



No,  $\overrightarrow{AD}$  doesn't necessarily bisect  $\angle BAC$

Yes, Q lies on the  $\perp$  bisector.

2

Use the given vertices of the triangle, find the coordinates of the following Circumcenter D(-9,-5), E(-5,-9), F(-2,-2)

$$\overline{DF} = \left( \frac{-9 + -2}{2}, \frac{-5 + -2}{2} \right) = \left( \frac{-11}{2}, \frac{-7}{2} \right)$$

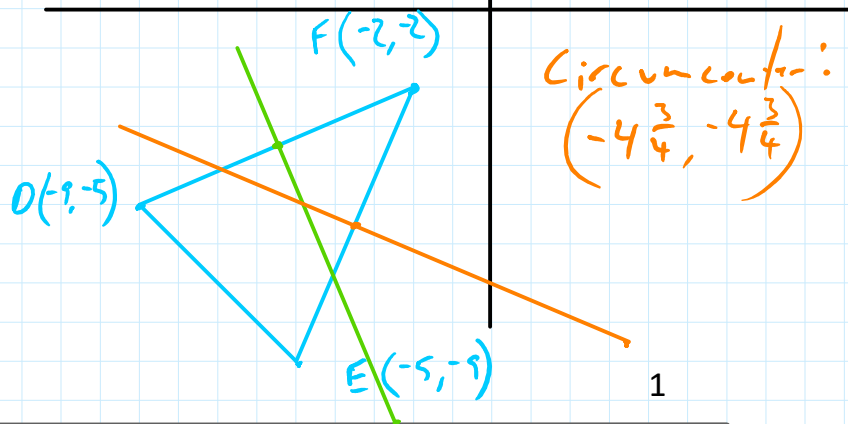
$$m \overline{DF} = \frac{-5 + -2}{-9 + -2} = \frac{-7}{-11} = \frac{7}{11}$$

$$\perp m \overline{DF} = -\frac{11}{7}$$

$$\overline{EF} = \left( \frac{-5 + -2}{2}, \frac{-9 + -2}{2} \right) = \left( \frac{-7}{2}, \frac{-11}{2} \right)$$

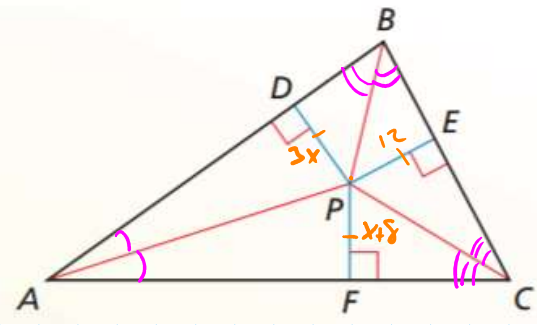
$$m \overline{EF} = \frac{-9 + -2}{-5 + -2} = \frac{-11}{-7} = \frac{11}{7}$$

$$\perp m \overline{EF} = -\frac{7}{11}$$



1

The incenter of ABC is point P. Use the given information to find the indicated measure.



$$PD = 3x$$

$$PF = x + 8$$

$$\text{Find } PE = 12$$

$$3x = x + 8$$

$$2x = 8$$

$$x = 4$$

$$3x; x = 4$$

$$3 \cdot 4$$

$$12$$

<http://www.mathopenref.com/triangleincenter.html>

2

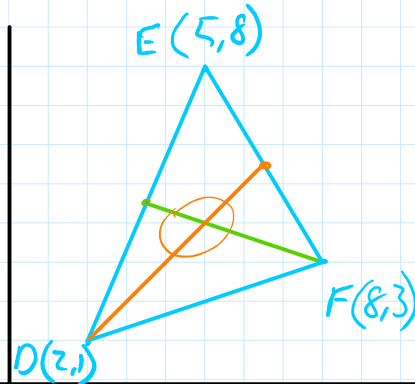
Use the given vertices of the triangle, find the coordinates of the following Centroid D(2,1), E(5,8), F(8,3)

$$\overline{ED} = \left( \frac{5+2}{2}, \frac{8+1}{2} \right) = \left( \frac{7}{2}, \frac{9}{2} \right)$$

$$\overline{EF} = \left( \frac{5+8}{2}, \frac{8+3}{2} \right) = \left( \frac{13}{2}, \frac{11}{2} \right)$$

$$\left( \frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2} \right)$$

$$\text{Centroid: } (5, 4)$$



<http://www.mathopenref.com/trianglecentroid.html>

1

Tell whether the orthocenter is inside, on or outside the triangle. Then find its coordinates. A(0,3), B(0,-2), C(6,-3)

$$m_{BC} = \frac{-2+3}{0-6} = \frac{1}{-6}$$

$$\perp m_{BC} = \frac{6}{1}$$

$$m_{AC} = \frac{3+3}{0-6} = \frac{6}{-6} = -1$$

A(0,3)

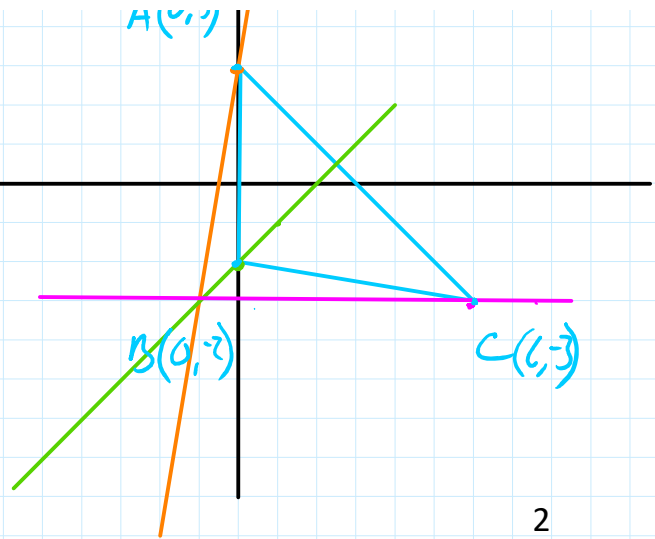


$$\perp \text{ to } AC = \overline{BT}$$

$$m \overline{AC} = \frac{3+3}{0-6} = \frac{6}{-6} = -1$$

$$\perp \text{ to } \overline{AC} = 1$$

Orthocenter:  
 $(-1, -3)$



<http://www.mathopenref.com/triangleorthocenter.html>

2

10 Questions total  
Calculator allowed

Chapter test pg. 353: 3-5A,  
9, 14, 15  
Chapter review pg. 350:  
1-10A

