

1. A line segment  $\overline{RT}$  has pt. S as its midpt.  
Find the **EXACT** coordinates of T if R and S have the following coordinates:  
 $R\left(\frac{5}{11}, \sqrt{75}\right)$  and  $S\left(\frac{3}{5}, \sqrt{192}\right)$ .

2. Determine a method that allows you to plot 5 points on the coordinate plane such that no three of these points will ever be collinear.  
Explain your reasoning and include a picture to support your method.

3. If Y is between A and B, find  $x$  and the measure of  $\overline{YB}$  when  $AY = 6\left(x - \frac{11}{6}\right)$ ,  $YB = 5x + 1$ , and  $AB = 8x + 11$

4. Points A and B are endpoints of a line segment on the coordinate plane.  
Point M is the midpoint.  
Using the following information, find the values of  $x$  and the coordinates of B.  
(Hint: There are 2 answers for  $x$  and for the coordinates of B)  
 $A(-2, -6)$ ;  $M(x, -3)$ ,  $AM = 3\sqrt{2}$