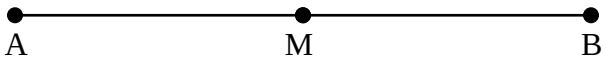
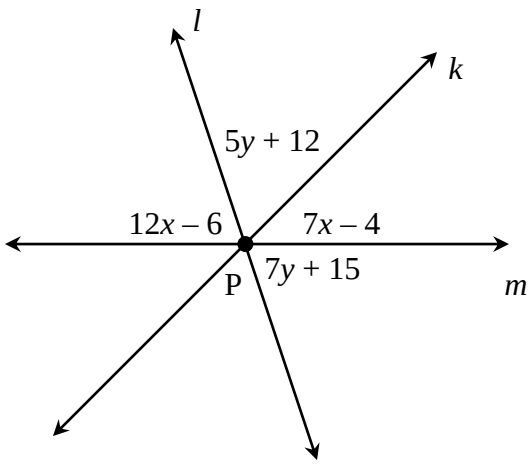
Name_____Per._____Date_____
Honors Geometry Practice Test

1. Points A and B are endpoints of a line segment on the coordinate plane. Point M is the midpt. Using the following information, find the values of x and y.
   A(11, x); M(y, 3), B(–4, –5)

2. In the figure below, M is the midpt. of $\overline{AB}$. If $AM = 7x - 5$ and $AB = 3x^2 + 2x - 1$, find x. (**HINT: There are 2 answers for x**)



3. Lines *l*, *k*, and *m* intersect at pt. P.
   Find *x* and *y* in the following figure.



4. The supplement of an $\angle$ is four less than three times the $\angle$'s complement.
   Find the measure of the angle, its complement, and its supplement.

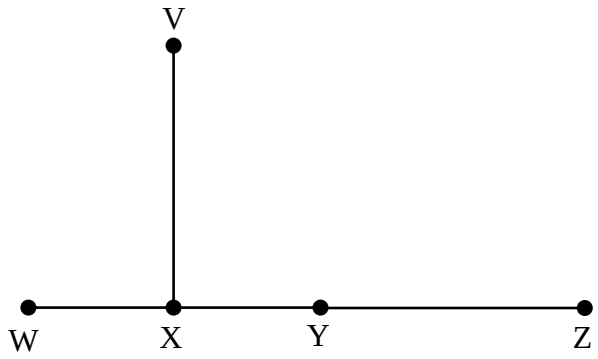
5. If Y is between A and B, find x and the measure of $\overline{\text{YB}}$ when
   $\text{AY} = \frac{3}{4}x + 3$, $\text{YB} = \frac{31}{7}x - 2$, and $\text{AB} = 5x + 5$

6. A line segment $\overline{RS}$ has pt. T as its midpt.
   Find the **EXACT** coordinates of S if R and T have the following coordinates:
   $R\left(\frac{4}{11},\ \sqrt{1792}\right)$ and $T\left(\frac{31}{7},\ \sqrt{847}\right)$.

Write a paragraph proof.

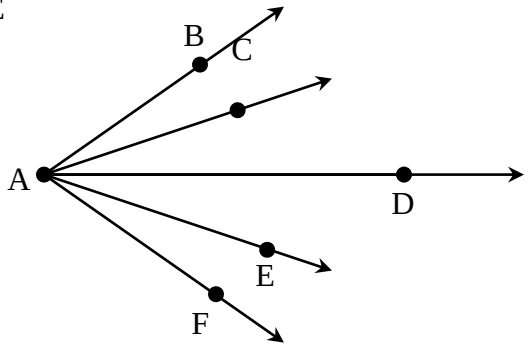
7. **Given:** $\overline{VX}$ bisects $\overline{WY}$
$\overline{VX} \cong \overline{YZ}$

Prove: WX + VX = XZ



`Write a paragraph proof.

8. **Given:** $\overrightarrow{AD}$ bisects ∠BAF and ∠CAE
   Prove: ∠BAC ≅ ∠EAF



Write a paragraph proof.

9. **Given:** $\angle 1$ and $\angle 2$ are comp. $\angle$'s
$\angle 2$ and $\angle 3$ are comp. $\angle$'s
Prove: $\angle 1 \cong \angle 3$