PAP Geometry CBA#1A Review

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- 1. If the slope of  $\overline{\mathsf{EF}}$  is  $\frac{2}{3}$  and E(2, 2) and F(x, 7). Find x
- 2. Write an equation of the line that passes through the given point P and has the given slope m.A) P(5,4), m = 4B) P(0,-3), m = 16

3. Write an equation of the line that passes through the point P and is perpendicular to the line with the given equation.
A) P(3,2), y = 3x + 1
B) P(-8, -2), y = 4x - 3

4. Graph each set of lines to form a triangle. Determine the vertices of the triangle from your graph. Find the equation of the perpendicular bisector of each side. (Hint: In order to find the perpendicular bisector for each side, you'll first need to find the slopes and midpoints of the side of the triangles.)



- 7. What are skew lines?\_\_\_\_\_
- 8. C is the midpoint of  $\overline{AB}$ . A(-5, -3) and B(3, 3). Find the coordinates for C.

9. D is the midpoint of EF. E(-6, 7) and D(-4, 2). Find ED and the coordinates of F.

Refer to the graph for #10-13

- 10. Find the coordinates of *D*, the midpoint of  $\overline{AB}$
- 11. Write the equation of the perpendicular bisector of  $\overline{AB}$
- 12. Find the length of  $\overline{CD}$



13. What is the midpoint of  $\overline{AC}$ ?

14. Duplicate and then bisect the line segment.



15. Duplicate and then bisect the angle.



16. Austin (10,-7) and Dallas (0,8) are plotted on a coordinate grid. Podunk is 3/5 the distance from Dallas to Austin. What is the coordinate location of Podunk? ( , )



17. Calculate the distance between the line given by the equation  $y = \frac{4}{3}x + 2$  and the point (-7, 1).

