GPS Geometry Name_____

Review of Distance Formula, Midpoint, and Slope

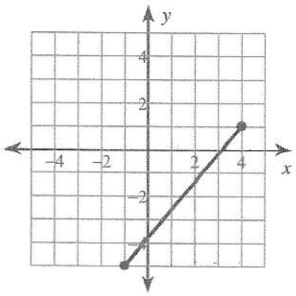
Date_____ Period____

Find the distance between each pair of points.

1) (–2, 6), (–1, –3) $\sqrt{1^2+9^2}=\sqrt{82}$

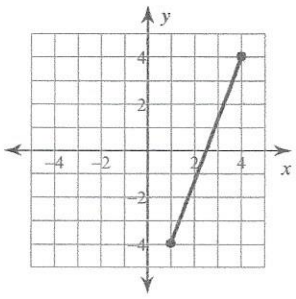
2) (5, 5), (3, –6) $\sqrt{2^2+11^2}=\sqrt{125}$

3)



$\sqrt{5^2+6^2}=\sqrt{61}$

4)



$\sqrt{3^2+8^2}=\sqrt{73}$

Find the midpoint of the line segment with the given endpoints.

5) (10, 8), (–3, –10) $\left(\frac{10+-3}{2}, \frac{8+-10}{2}\right)=\left(\frac{7}{2}, -1\right)$

6) (–9, –3), (–8, 4) $\left(\frac{-9+-8}{2}, \frac{-3+4}{2}\right)=\left(\frac{-17}{2}, \frac{1}{2}\right)$

7) (–6, 2), (4, 2) $\left(\frac{-6+4}{2}, \frac{2+2}{2}\right)=(-1, 2)$

8) (2, 1), (3, –10) $\left(\frac{2+3}{2}, \frac{1+-10}{2}\right)=\left(\frac{5}{2}, \frac{-9}{2}\right)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

9) Endpoint: (0, –5), midpoint: (–4, –5) $(-8, -5)$

10) Endpoint: (–1, –1), midpoint: (3, –2) $(7, -3)$

Find the slope of the line through each pair of points.

11) (5, –16), (7, 20) $\frac{36}{2}=18$

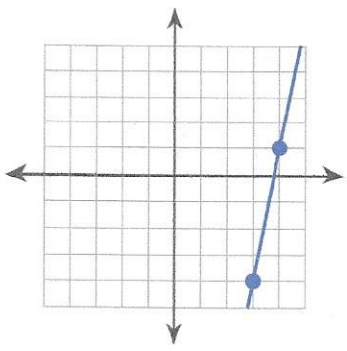
12) (–7, –18), (–16, 0) $\frac{-18}{9}=-2$

13) (–5, –4), (–12, 7) $\frac{-11}{7}$

14) (13, 8), (0, 5) $\frac{3}{13}$

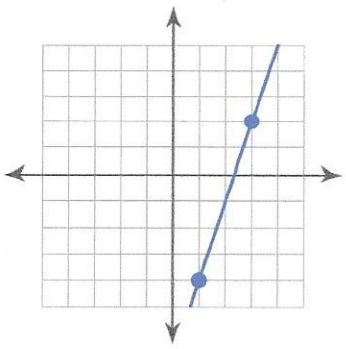
Find the slope of each line.

15)



$\frac{5}{1}=5$

16)



$\frac{6}{2}=3$