

Name: _____

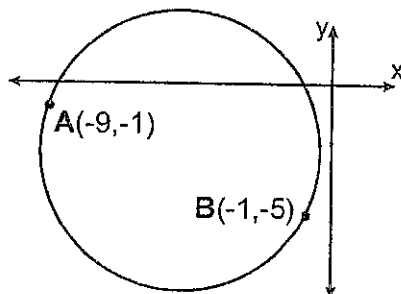
What is the slope of the line passing through $(-5,-1)$ and $(-2,-1)$?

- A) $\frac{4}{3}$ B) $\frac{3}{4}$ C) 0 D) undefined

2) What are the coordinates of the midpoint of the line segment whose endpoints are $(-5,-2)$ and $(-3,-8)$?

- A) $(-8,-10)$ B) $(-1,3)$ C) $(-5,-4)$ D) $(-4,-5)$

\overline{AB} is the diameter of the circle shown in the accompanying diagram.



What are the coordinates of the center of this circle?

- A) $(-4,-2)$ B) $(-3,-5)$ C) $(-5,-3)$ D) $(-2,-4)$

4) What is the slope of a line that is perpendicular to the line whose equation is $2x - y = 7$?

- A) -2 B) $-\frac{1}{2}$ C) $\frac{1}{2}$ D) 2

5) If $M(-2,5)$ is the midpoint of \overline{AB} and the coordinates of A are $(4,7)$, find the coordinates of B .

6) Show that the line joining $A(-4,-1)$ and $B(3,1)$ is parallel to the line joining $C(4,4)$ and $D(-3,2)$.

7) Line b contains the points $(8,-2)$ and $(5,3)$.

(a) The slope of a line parallel to b is 2.

(b) The slope of a line perpendicular to b is

8) Determine the slope (m) and the y -intercept (b) of the line $2y + 4 = x$.

-) Write an equation of the line whose slope and y-intercept are 2 and 4 respectively.
- 0) Write an equation of the line whose slope is $\frac{2}{3}$ and that passes through the point (6,4).
- 1) Write an equation of the line that passes through the points (2,1) and (6,3).
- 2) Write an equation of the line that is parallel to $y = 3x - 5$ and that passes through the point (1,6).
- 3) Write an equation of the line perpendicular to the line $y = \frac{2}{3}x - 2$ and passes through (-4,-7).

- 14) Classify the graphs of $y = 3x - 1$ and $y = \frac{1}{3}x + 1$ as parallel, perpendicular, or neither.
- 15) Classify the graphs of $2x + y = 7$ and $y = \frac{1}{2}x +$ as parallel, perpendicular, or neither.
- 16) Classify the graphs of $y = 2x + 8$ and $y - 2x =$ as parallel, perpendicular, or neither.
- 17) Write an equation of the line that is the perpendicular bisector of the line segment having endpoints of $(-4, -2)$ and $(8, 4)$.