

Name:

Date:

Pts:

Technical Math Mod C → Geometry
Lesson 8 – Study Guide – Coordinate Geometry

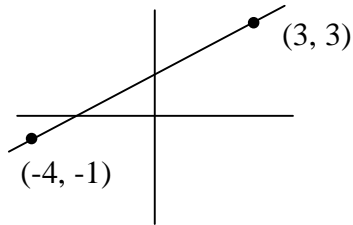
1) What is the vertical axis of a Cartesian coordinate system called?

- A x-axis B y-axis C origin

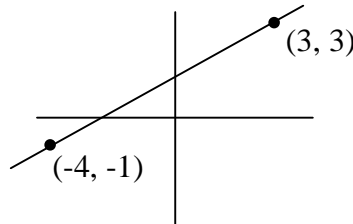
2) A segment has endpoints at $(-6, 4)$ and $(6, -8)$. What is the x-coordinate of the midpoint of that segment?

3) What is the midpoint of the segment below?

- A $(-0.5, 1)$
B $(1, 0.5)$
C $(0.5, 1)$
D $(1, 0)$



4) What is the distance between the two endpoints in the graph below? If necessary, round your answer to two decimal places.



5) What is the distance between the points $(-10, 15)$ and $(5, -3)$? If necessary, round your answer to two decimal places.

6) When the points on a graph go downward from right to left, we say they indicate _____.

- A no correlation
B a positive correlation
C a negative correlation

7) True or False? A line of best fit should go through the middle of the plotted data points.

8) What is the distance between the origin and the point (7, -21)? Round your answer to two decimal places.

9) What is the equation of the line containing the points (1, 5), (-4, -20), and (3, 15)?

- A $y = 5x$
- B $y = x^5$
- C $y = (1/5)x$

10) Which of the points below are on the line given by the equation $y = -3x$? Circle all that apply.

- A (1, -3)
- B (1, 3)
- C (-3, 9)
- D (0, 0)
- E (2, -6)
- F (-5, -15)

11) What is the slope of the line that contains the points (1, 2) and (-1, 7)?

12) What word describes the slope of the line passing through points (2, 10) and (5, 1)?

- A negative
- B zero
- C undefined
- D positive

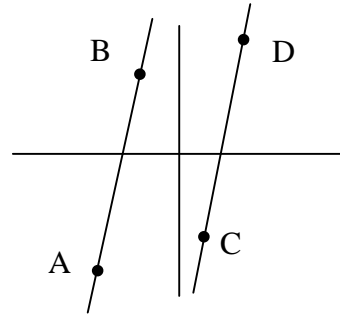
13) What is the slope of the line given by the equation $y = -x - 4$?

14) A line has a slope of 4 and a y-intercept of -3. What is the value of y when $x = 2$?

15) True or False? Parallel lines never intersect.

16) Given that the slope of a line is $1/2$, what is the slope of a line that is perpendicular to it?

17) If \overline{AB} is parallel to \overline{CD} and the slope of \overline{CD} is 4, what is the slope of \overline{AB} ?



18) If \overleftrightarrow{AB} contains the points $(2, -5)$ and $(-4, 7)$, what is the slope of a line perpendicular to \overleftrightarrow{AB} ?

19) What is the slope of the line given by the equation $y = -2x + 21$?

20) Which equations correctly describe a line with a y-intercept of -1? Circle all that apply.

A $y = -x$

B $y = x - 1$

C $y = x + 1$

D $y = -x - 1$

E $y = x - 10$

F $y + 1 = x$

21) A circle centered at the origin runs through the point $(5, -12)$. What is the radius of the circle?

22) What is the center of the circle given by the equation $(x - 4)^2 + (y + 1)^2 = 64$?

- A (-1, 4) B (4, -1) C (-4, 1) D (1, -4)

23) What is the y-intercept of the line given by the equation $y = 12x - 6$?

24) Which of the following equations correctly represents a circle centered at $(-7, 0)$ with a radius of 7?

- A $(x + 7)^2 + y^2 = 7$
B $(x - 7)^2 + y^2 = 49$
C $(x - 7)^2 + y^2 = 7$
D $(x + 7)^2 + y^2 = 49$

25) According to the question below, how far apart do Joanna and Jeni live? Round your answer to two decimal places.

Joanna and Jeni are best friends.

Joanna lives 2 miles west and 9 miles north of the center of a park.

Jeni lives 4 miles east and 8 miles south of the same park.

How far apart do they live?