SOL Lesson 2 Quiz
Graphing Linear Eqns

Name $\qquad$ Date $\qquad$

1. Which line has $y$-intercept 2 and $x$-intercept -3 ?


B


C


D

2. Which is the graph of a line that appears to have a slope of 2 and $y$-intercept -3 ?

$\qquad$
$\qquad$


Using the graph above, write an equation in slope intercept form
5. Which is a zero of the function $f(x)=x^{2}+4 x-5$ ?

A 5
B -1
C 4
D -5
4. The graph of $y=-\frac{2}{3} x+2$ is shown.


If the line in the graph is shifted up 3 units, which is the equation of the new line?

A $y=-\frac{2}{3} x+3$
B $y=\frac{2}{3} x+5$
C $y=-\frac{2}{3} x+5$
D $y=\frac{2}{3} x+3$
6. What is the slope of the line that contains $(4,-2)$ and $(3,3)$ ?
7.Which is an equation for the line that contains the points $(-2,4)$ and $(2,0)$

A $y=-2 x$
B $y=-x+2$
C $y=x-2$
D $y=x+6$
8. A line has a slope of -2 and contains the point (1, -
3). Which is an equation of this line?

A $y=2 x-5$
B $y=-2 x-3$
C $y=-2 x-1$
D $y=-x$
$\qquad$
$\qquad$
9. What is the slope of the line that contains points $(3,4)$ and $(3,-5)$ ?

A 0
B Undefined
C $\quad \frac{-1}{5}$
D $\quad-5$
11.


## Which line on the graph has an

 undefined slope?A $A$
B $B$
C $C$
D $D$
13. What is the y-intercept of

$$
6 x+9 y=18
$$

A -6
B $\frac{-2}{3}$
C 2
D 3
10. What are the $x$-intercepts of the graph of the following equation?

$$
y=x^{2}+6 x+5
$$

A $\quad-1$ and 1
B $\quad-2$ and 4
C $\quad-5$ and -1
D $\quad-3$ and -4
12.


Which line on the grid appears to have slope $-\frac{2}{3}$ ?

F $A$
G $B$
H $C$
J $D$
14. Which equation is the slope-intercept form of $-x+4 y=12$ ?

A $\quad 4 y=12+x$
B $\quad x=4 y-12$
C $y=\frac{-1}{4} x+3$
D $y=\frac{1}{4} x+3$

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16.


Which is most likely the equation of the line shown on the graph above?

A $y=x+3$
B $\quad x=3$
C $y=3$
D $y=3 x$

17,


Which best represents the equation of the line shown?

A $y=\frac{1}{3} x-2$
B $y=-\frac{1}{3} x-2$
C $y=-\frac{1}{3} x+2$
D $y=\frac{1}{3} x+2$
18.


Which equation best describes this graph?

A $y=18-3 x$
B $\quad y=x+16-x^{2}$
C $\quad y=24-4 x$
D $y=x^{2}+6 x-18$

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19. The dashed line represents $y=x$. On which grid is $y=3 x+1$ apparently represented as well?



Which equation fits the data in the table?
A $y=x+4$
B $y=\frac{-x}{2}+3$
C $y=2 x-2$
D $y=\frac{x}{2}+3$
20. Graph the equation

$$
y=-2 x+1
$$


20.5 Graph the equation

22. Which is an equation for the line which contains $(2,5)$ and the origin?

A $y=2 x+5$

B $\quad y=5 x+2$
C $y=\frac{2}{5} x$
D $y=\frac{5}{2} x$

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24. Circle each equation whose line has a slope of 3 .
$y=3 x+7$
$-3 x+y=9$
$y=x+3$
$3 x-3 y=3$
$y-4=3(x-2)$
$y=3$
25. Use the given numbers to create an ordered pair representing a solution to $y<x-4$.

Directions: You may use a number twice. Be sure to write your answer in the space provided.

ANSWER: ( $\qquad$ , $\qquad$ )

G $\frac{2}{3}$
H $-\frac{2}{3}$
J $\quad-\frac{3}{2}$
The line shown contains $(-1,2)$ and $(2,0)$. What is the slope of the line?

F $\frac{3}{2}$
26. Using the inequalities shown, create a system of two inequalites that could be represented by this graph.


Circle the two inequalities that you select.
You must circle the two correct inequalities

$\qquad$
27. A rancher wants to fence in a rectangular habitat for the foals that are born in the spring. The length of the habitat should be at least 60 feet, and the distance around it should be no more than 360 feet. Select the graph that represents the possible dimensions of the habitat.

28. Jason is beginning his drive home from college. He is traveling at a constant speed. After one hour he is $\mathbf{3 6 5}$ miles from home. After three hours of driving, he is $\mathbf{2 5 5}$ miles from home. Which equation represents Jason's distance from home?
A) $d(t)=55 t+420$
B) $d(t)=-55 t+310$
C) $d(t)=-55 t+420$
D) $d(t)=-55 t+255$

