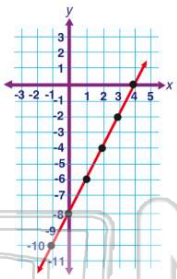
Linear equations

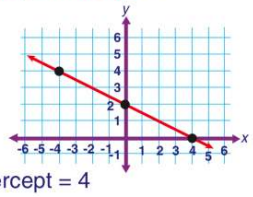
Name _____ Class _____ Date _____

1 The graph shown represents which **linear equation**?



A $y = x - 8$
B $y = 2x + 9$
C $y = 2x - 8$
D $y = 3x - 8$

2 What is the **slope and *y*-intercept** of the line shown?



A slope = -2, *y*-intercept = 2
B slope = -2, *y*-intercept = 4
C slope = $\frac{-1}{2}$, *y*-intercept = 4
D slope = $\frac{-1}{2}$, *y*-intercept = 2

3 The slopes of **parallel lines** are negative reciprocals of each other.

True or false?

A true
B false

4 What is the equation of a line that goes through the point **(-2, 1)** and has a slope of **3** in **point-slope form**?

A $y + 1 = 3x - 2$
B $y + 1 = 3x + 2$
C $y - 1 = 3x + 6$

5 W
th
o
A
B

7 W
th
o

A $y + 2 = \frac{2}{3}x + 4$ **D** $y - 2 = \frac{2}{3}x - 6$

B $y - 2 = \frac{2}{3}x + 6$ **C** $y + 2 = \frac{2}{3}x - 4$

A $y + 1 = \frac{-1}{3}x - 1$ **C** $y + 1 = 3x - 1$

B $y - 1 = \frac{-1}{3}x - 3$ **D** $y - 1 = 3x - 3$

9 What is the equation of a line that goes through the **origin** and is parallel to the line $y = x - 3$ in **point-slope form**?

A $y = x - 1$
B $y = 3x$
C $y = x + 1$
D $y = x$

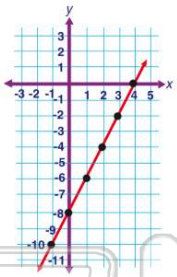
10 What is the equation of a line that goes through the point **(-5, -3)** and is **parallel** to the ***x*-axis**?

A $y = -5$
B $y = -3$
C $x = -5$
D $x = -3$

Math H

ANSWER KEY

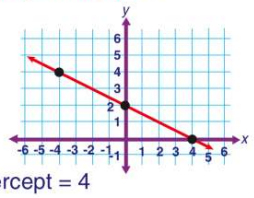
The graph shown represents which **linear equation**?



A $y = x - 8$
B $y = 2x + 9$
C $y = 2x - 8$
D $y = 3x - 8$

c

What is the **slope and y-intercept** of the line shown?



A slope = -2, y-intercept = 2
B slope = -2, y-intercept = 4
C slope = $\frac{-1}{2}$, y-intercept = 4
D slope = $\frac{-1}{2}$, y-intercept = 2

d

The slopes of **parallel lines** are negative reciprocals of each other.

True or false?

A true
B false

b

What is the equation of a line that goes through the point **(-2, 1)** and has a slope of **3** in **point-slope form**?

A $y + 1 = 3x - 2$
B $y + 1 = 3x + 2$
C $y - 1 = 3x + 6$
D $y - 1 = 3x + 2$

c

A $y + 2 = \frac{1}{3}x + 4$ **D** $y - 2 = \frac{1}{3}x - 6$

B $y - 2 = \frac{2}{3}x + 6$ **C** $y + 2 = \frac{2}{3}x - 4$

A $y + 1 = \frac{1}{3}x - 1$ **C** $y + 1 = 3x - 1$

B $y - 1 = \frac{-1}{3}x - 3$ **D** $y - 1 = 3x - 3$

What is the equation of a line that goes through the **origin** and is parallel to the line $y = x - 3$ in **point-slope form**?

A $y = x - 1$
B $y = 3x$
C $y = x + 1$
D $y = x$

d

What is the equation of a line that goes through the point **(-5, -3)** and is **parallel** to the **x-axis**?

A $y = -5$
B $y = -3$
C $x = -5$
D $x = -3$

b