## Exercises - Rate of Change and Slope

1


What is the rate of change shown in the graph of the line above?
A) $-\frac{4}{3}$
B) $-\frac{3}{4}$
C) $\frac{3}{4}$
D) $\frac{4}{3}$

2

| $x$ | -3 | 0 | 3 | 6 |
| :---: | :---: | :---: | :---: | :---: |
| $y$ | -1 | 1 | 3 | 5 |

What is the average rate of change for the relation shown in the table above?
A) $\frac{1}{3}$
B) $\frac{1}{2}$
C) $\frac{2}{3}$
D) $\frac{5}{6}$

3
The graph of the linear function $f$ passes through the points $(a, 1)$ and $(1, b)$ in the $x y$-plane. If the slope of the graph of $f$ is 1 , which of the following is true?
A) $a-b=1$
B) $a+b=1$
C) $a-b=2$
D) $a+b=2$

## 4

What is the slope of the line that passes through $(3,2)$ and $(-1,-8)$ ?

## 5

What is the value of $r$ if the line that passes through $(4,3)$ and $(-5, r)$ has a slope of -1 ?

## 6

What is the value of $a$ if the line that passes through $(a, 7)$ and $(1, a)$ has a slope of $-\frac{5}{9}$ ?

## 7

$$
-x+4 y=6
$$

What is the slope of the line in the equation above?

