

Function Notation Worksheet

1. If $f(x) = 3x^2 - x$, find each of the following.

a. $f(0)$

b. $f(1)$

c. $f(-2)$

d. $f\left(\frac{1}{2}\right)$

e. $f(a)$

f. $f(a+1)$

2. If $f(x) = \frac{2}{x}$, find each of the following.

a. $f(0)$

b. $f(1)$

c. $f(-2)$

d. $f\left(\frac{1}{2}\right)$

e. $f(a)$

f. $f(a+1)$

3. If $f(x) = 2 - 3x$, find each of the following.

a. $f(0)$

b. $f(1)$

c. $f(-2)$

d. $f\left(-\frac{1}{3}\right)$ e. $f(x-3)$ f. $f(a+h)$

4. If $f(x) = \sqrt{2x+3}$, find each of the following.

a. $f(0)$ b. $f(3)$ c. $f(-2)$

d. $f(-1)$ e. $f\left(\frac{1}{2}\right)$ f. $f(a+2b)$

Answers:

1. a. 0 b. 2 c. 14 d. $\frac{1}{4}$ e. $3a^2 - a$ f. $3a^2 + 5a + 2$

2. a. undefined b. 2 c. -1 d. 4 e. $\frac{2}{a}$ f. $\frac{2}{a+1}$

3. a. 2 b. -1 c. 8 d. 3 e. $11 - 3x$ f. $2 - 3a - 3h$

4. a. $\sqrt{3}$ b. 3 c. not Real (-2 is not in the domain of this function)

d. 1 e. 2 f. $\sqrt{2a+4b+3}$