

Evaluating Rational Functions

A) Evaluate each function at the specified value.

1) $f(x) = \frac{x+1}{3}; x = -10$

2) $f(x) = \frac{x^2 - 2x}{4x}; x = 4$

3) $f(x) = \frac{5x - 8}{-10x + 4}; x = -2$

4) $f(x) = \frac{3x + 1}{5}; x = 8$

B) Evaluate each function.

1) If $f(x) = \frac{x^2 - 4x + 6}{2x}$, find $f(7)$.

2) If $f(x) = \frac{8x}{x-3}$, find $f(1)$.

3) If $f(x) = \frac{5}{x+12}$, find $f(-3)$.

4) If $f(x) = \frac{15}{(x+1)(x-1)}$, find $f(0)$.

C) What is the value of $f(-9)$ if $f(x) = \frac{7-x^2}{-8-x}$?

i) -74

ii) 74

iii) 73

iv) -73