

# Evaluating Rational Functions

A) Evaluate each function at the specified value.

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

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2)  $f(x) = \frac{-x-7}{x^2-9}$ ;  $x = -1$

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B) Evaluate each function.

1)  $f(x) = \frac{x^2 + 7x + 10}{x^2 - 16}$ ;

\_\_\_\_\_

find  $f(-6)$

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# PREVIEW

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C) If  $f(x) = \frac{5x-4}{12+x}$ ; find

1)  $f(5) =$  \_\_\_\_\_

3)  $f(0) =$  \_\_\_\_\_

D) If  $f(x) = \frac{-4x^2 + 9x}{10x}$ ; find

1)  $3f(5) \times 2f(-4) =$  \_\_\_\_\_

3)  $2f(-1) - 8f(3) =$  \_\_\_\_\_

4)  $\frac{f(7)}{f(-2)} =$  \_\_\_\_\_

E) What is the value of  $f(-3)$ , if  $f(x) = \frac{(x+1)(x-3)}{x-15}$ ?

i)  $\frac{2}{3}$

ii)  $-\frac{2}{3}$

iii)  $-2$

iv)  $-\frac{3}{2}$

