

## Evaluating Piecewise Functions

A) Evaluate each function.

$$1) f(x) = \begin{cases} 7(x^2 - 5) & , -4.9 \leq x < 3 \\ \frac{x}{9} & , 3 \leq x \leq 14 \end{cases}$$

$$2) f(x) = \begin{cases} -2x - 7 & , 0 \leq x \leq 1 \\ \frac{2x + 7}{4} & , 1 < x \leq 16 \end{cases}$$

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

i)  $f(0.65) =$  \_\_\_\_\_

ii)  $f(-3) =$  \_\_\_\_\_

ii)  $f\left(\frac{3}{2}\right) =$  \_\_\_\_\_

$$3) f(x) = \begin{cases} (x-1)(x+1) & , x = -6 \\ \frac{x}{3-x} & , -6 < x \leq 7 \\ \frac{1}{x-7} & , 7 < x < \infty \end{cases}$$

i)  $f\left(-\frac{1}{4}\right) =$  \_\_\_\_\_

ii)  $f(2) =$  \_\_\_\_\_

$$B) \text{ If } f(x) = \begin{cases} \frac{3}{x} & , -\infty < x < -1 \\ \frac{4+x}{2x} & , \frac{1}{2} < x < 1 \\ -8 & , \frac{9}{2} < x < \infty \end{cases}$$

1)  $f(6.5) - 6f(3) =$  \_\_\_\_\_

3)  $3f\left(\frac{3}{2}\right) \times 5f\left(-\frac{5}{2}\right) =$  \_\_\_\_\_

4)  $2f(11) + 4f(1) =$  \_\_\_\_\_

C) If  $f(x) = \begin{cases} -x^2 & , -\infty < x \leq -5 \\ \frac{5x}{7} & , -5 < x < \infty \end{cases}$ , what is the value of  $f(-5.1)$ ?

i) 3.64

ii)  $-\frac{25.5}{7}$

iii) -26.01

iv) 26.01

# PREVIEW

Gain complete access to the largest  
collection of worksheets in all subjects!

Members, please  
log in to  
download this  
worksheet.

Not a member?  
Please sign up to  
gain complete  
access.

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)