

## Evaluating Exponential Functions

A) Evaluate each function at the specified value. Round your answer to the nearest tenth.

1)  $f(x) = -12x \cdot (7.4)^{-(x-3)}$ ;  $x = 5$

\_\_\_\_\_

2)  $f(x) = \frac{7}{2} \cdot \left(-\frac{1}{7}\right)^{6x} + \frac{2}{7}x$ ;  $x = \frac{1}{3}$

\_\_\_\_\_

B) Evaluate each function. Round your answer to the nearest tenth.

1)  $f(x) = 10 - \frac{3}{4}x \cdot \left(\frac{4}{9}\right)^x$

\_\_\_\_\_

2)  $f(x) = 5 \cdot (\sqrt{1.2})^{-x}$ ;  $x = -2$

\_\_\_\_\_

C) If  $f(x) = 2.3 \cdot (4)^{1-x} - 1.4$

Round your answer to the nearest tenth.

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

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

D) If  $f(x) = \left(\frac{1}{2}\right)^{-4x} - \frac{1}{6}$ ; find

1)  $f\left(\frac{1}{4}\right) - \frac{1}{2}f(-1) =$  \_\_\_\_\_

3)  $3f(0) + f\left(\frac{1}{2}\right) =$  \_\_\_\_\_

4)  $\frac{5f(0)}{2f(-1)} =$  \_\_\_\_\_

E) What is the value of  $f(5)$ , if  $f(x) = 12x - 5 \cdot (8.4)^{0.2x}$ ?

i) 60

ii) -42

iii) 18

iv) 102

# 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

**Evaluating Exponential Functions**

A) Evaluate each function at the specified value. Round your answer to the nearest tenth.

1)  $f(x) = -12x \cdot (7.4)^{-(x-3)}$ ;  $x = 5$

-1.1

2)  $f(x) = \frac{7}{2} \cdot \left(-\frac{1}{7}\right)^{6x} + \frac{2}{7}x$ ;  $x = \frac{1}{3}$

 $\frac{1}{6}$ 

B) Evaluate each function. Round your answer to the nearest tenth.

1)  $f(x) = 10 - \frac{3}{4}x \cdot \left(\frac{4}{9}\right)^x$

 $\frac{81}{8}$  or 10.125

2)  $f(x) = 5 \cdot (\sqrt{1.2})^{-x}$ ;  $x = -2$

4

C) If  $f(x) = 2.3 \cdot (4)^{1-x} - 1.4$

to the nearest tenth.

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

-3.1

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

-0.5

D) If  $f(x) = \left(\frac{1}{2}\right)^{-4x} - \frac{1}{6}$ ; find

1)  $f\left(\frac{1}{4}\right) - \frac{1}{2}f(-1) =$  \_\_\_\_\_

 $\frac{95}{12}$  or  $7\frac{11}{12}$ 

3)  $3f(0) + f\left(\frac{1}{2}\right) =$  \_\_\_\_\_

 $\frac{19}{3}$  or  $6\frac{1}{3}$ 

4)  $\frac{5f(0)}{2f(-1)} =$  \_\_\_\_\_

-20E) What is the value of  $f(5)$ , if  $f(x) = 12x - 5 \cdot (8.4)^{0.2x}$ ?

i) 60

ii) -42

iii)  18

iv) 102

**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)