

Evaluating Exponential Functions

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

1) $f(x) = 8.8x \cdot (\sqrt{2})^{-x} - 9.2 ; x = -4$

2) $f(x) = -14 \cdot x \left(\frac{1}{9}\right)^{x-2} ; x = \frac{5}{2}$

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

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

$\cdot (2.2)^{-0.4x} ; x = 5$

C) If $f(x) = \frac{1}{8} \cdot (2)^{-4x+1} + \dots$

1) $f\left(\frac{3}{2}\right) =$ _____

3) $f\left(-\frac{1}{4}\right) =$ _____

D) If $f(x) = 3 \cdot (1.1)^{2x-3} ; f$

1) $\frac{3f(-1)}{f(2)} =$ _____

3) $4f(3) \times f(0) =$ _____

4) $2f(-1) - 1.1f(4) =$ _____

E) What is the value of $f(2)$, if $f(x) = -10.5 \cdot (\sqrt{6})^x$?

i) 31.5

ii) -63

iii) 63

iv) -31.5

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) $f(x) = 8.8x \cdot (\sqrt{2})^{-x} - 9.2$; $x = -4$

-150

2) $f(x) = -14 \cdot x \left(\frac{1}{9}\right)^{x-2}$; $x = \frac{5}{2}$

 $-\frac{35}{3}$ or $-11\frac{2}{3}$

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

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

-42

$(2.2)^{-0.4x}$; $x = 5$

4

C) If $f(x) = \frac{1}{8} \cdot (2)^{-4x+1} + \dots$

1) $f\left(\frac{3}{2}\right) =$ _____

 $\frac{3}{4}$

3) $f\left(-\frac{1}{4}\right) =$ _____

 $\frac{129}{2}$ or $64\frac{1}{2}$

D) If $f(x) = 3 \cdot (1.1)^{2x-3}$; f

nearest tenth.

1) $\frac{3f(-1)}{f(2)} =$ _____

9.1

3) $4f(3) \times f(0) =$ _____

36

4) $2f(-1) - 1.1f(4) =$ _____

-1.6E) What is the value of $f(2)$, if $f(x) = -10.5 \cdot (\sqrt{6})^x$?

i) 31.5



-63

iii) 63

iv) -31.5

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