

Name: \_\_\_\_\_

## Evaluating Exponential Functions

MS3

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

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

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

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

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

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

nearest tenth.

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

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