**Section 2.1**

1. Evaluate the function at the indicated values.

a.

b.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

a.

b.

3. Use the function to evaluate the indicated expressions and simplify.

a.

b.

c. Is equal to ?

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

a.

b.

c. Is equal to ?

No, because is not

equal to .

5. Find ,  and the difference quotient , where .

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a.

b.

c.

2. Evaluate the function at the indicated values.

a.

b.

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4. Use the function to evaluate the indicated expressions and simplify.

a.

b.

c. Is equal to ?

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6. Find , and the difference quotient , where .

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8. Find the domain of the functions. Write your answer using interval notation.

a.

b.

c.

d.

e.

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7. Find the domain of the functions. Write your answer using interval notation.

a.

b.

c.

d.

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a.

Denominator

b.

Can’t take the square root of a neg. #.

c.

Can’t take the square root of a neg. # but you CAN take the 3rd root, 5th root, 7th root, etc. So, there are no restrictions.

d.

Restriction 1:

Square root:

Restriction 2:

Combined Restrictions:

10. A verbal description of a function is given.

To evaluate , square the input and multiply the result by 2.

a. Find an algebraic representation for the function.

b. Find a numerical representation for the function

|  |  |
| --- | --- |
|  |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

c. Find a graphical representation for the function.

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9. A verbal description of a function is given.

To evaluate , divide the input by 3 and add to the result.

a. Find an algebraic representation for the function.

b. Find a numerical representation for the function

|  |  |
| --- | --- |
|  |  |
| 1 |  |
| 4 |  |
| 6 |  |
| 8 |  |

c. Find a graphical representation for the function.

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a.

b.

c.

