**Multiple Choice: [2] points each. You must show work/explain EVERY question for full credit.**

 1.) Robin spent $17 at an amusement park for admission and rides. If she paid $5 for admission, and rides cost $3 each, what is the total number of rides that she went on?

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | 12 | 3) | 9 |
| 2) | 2 | 4) | 4 |

1.)\_\_\_\_\_\_\_\_\_

2.) Given the piecewise equation $\left(x\right)=\left\{\begin{array}{c}x-3, \&x\leq 1\\2x, \&x>1\end{array}\right.$ , determine f(-2).

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | 6 | 3) | -4 |
| 2) | -5 | 4) | -1 |

2.)\_\_\_\_\_\_\_\_\_

 3.) Determine the domain of the function.

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | $$(-\infty , \infty )$$ | 3) | $$[0, 4]$$ |
| 2) | $$[-\infty , \infty ]$$ | 4) | $$[-1, 3]$$ |

3.)\_\_\_\_\_\_\_\_\_

4.) Cindy has four more than twice as many CDs as Nina. If they have a total of 31 CDs, how many CDs does Nina have?

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | 9 | 3) | 14 |
| 2) | 13 | 4) | 22 |

4.)\_\_\_\_\_\_\_\_\_

5.) Name the piecewise function to the right:

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | $$f\left(x\right)\left\{\begin{array}{c}\begin{array}{c}-3, \&x\leq -3\\-x+3, \&-3<x\leq 0\end{array}\\4, x>0 \end{array}\right.$$ | 3) | $$f\left(x\right)\left\{\begin{array}{c}\begin{array}{c} -3, \&x<-3\\x+3, \&-3\leq x\leq 0\end{array}\\-4, x>3 \end{array}\right.$$ |
| 2) | $$f\left(x\right)\left\{\begin{array}{c}\begin{array}{c} 3, \&x<0\\x+3, \&-3\leq x\leq 0\end{array}\\-4, x>3 \end{array}\right.$$ | 4) | $$f\left(x\right)\left\{\begin{array}{c}\begin{array}{c} 3, \&x\leq -3\\-x-3, \&-3<x<0\end{array}\\-4, x\geq 0 \end{array}\right.$$ |

5.) \_\_\_\_\_\_\_\_\_

**Short Answer (2) points.**

 6.) If , then solve for *w*, in terms of *x* and *y*.

.

**Short Answer (3) points.**

7.) Solve for k **AND** check : 

**Short Answer (5) points.**

8.) Graph the function.

$f\left(x\right)=\left\{\begin{array}{c}-2x-5, -5\leq \&x\leq -1\\-5, -1<x\leq 2\\-\frac{1}{2}x+1 x>2\end{array}\right.$

b) State the domain of the function, in interval notation.

c) State the range of the function, in interval notation.