Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**DO NOW:**



Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**DO NOW:**



Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**Functions Lesson**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***h*** | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| ***s*** | 20 | 26 | 32 | 38 | 44 | 50 | 56 |

**The table shows the amount of ice cream sales, in dollars, recorded at Baskin Robbins *h* hours after 11AM last Saturday. *S* is a function of *h*.**

1. **Using the table, answer the following questions.**
	1. What variable represents the domain?
	2. What does that domain mean in this context?
	3. What variable represents range?
	4. What does that range mean in this context?
	5. What does the $26 mean in the table?
	6. What does *s(5)* mean?

	What does *s(0)* mean?
	7. Write an inequality statement that compares *s(2)* and *s(3)*.
2. **Let *s(h)* represent the total sales of Baskin Robbins in a given hour. 11AM represents hour 0, select the statement that is true.**
3. $s\left(h+1\right)=s(h)$
4. $s\left(h+1\right)=6(s\left(h\right))$
5. $s\left(h+1\right)=s\left(h\right)+1$
6. $s\left(h+1\right)=s\left(h\right)+6$

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**Student Practice – Functions**



1. **Two bicycle riders start a race at the same time. The functions *f(x)* and *g(x)* give the distance in miles that each rider has traveled after *x* hours of riding. What does *f(2) – g(2)* = 5 mean in this context?**
	1. The riders are 2 miles apart 5 hours after the race starts.
	2. The riders are 5 miles apart 2 hours after the race starts.
	3. Both riders travel 2 miles in the first 5 hours of the race.
	4. Both riders travel 5 miles in the first 2 hours of the race.
2. **If *f* is a function and *x* is an element of its domain, then which of these is correct?**
	1. *f(x)* denotes the output corresponding to the input *x*, and the graph of the function is *y=f(x).*
	2. *f(x)* denotes the output corresponding to the input *x*, and the graph of the function is *x=f(y).*
	3. *f(x)* denotes the input corresponding to the input *x*, and the graph of the function is *y=f(x).*
	4. *f(x)* denotes the input corresponding to the input *x*, and the graph of the function is *x=f(y).*
3. 



**Extension:**

**The function *f(V)* represents the amount, in dollars, raised at a fundraiser for a charity by *v* volunteers.**

**For each of the following, match the Question Stem to the Answer Choices**

|  |  |  |  |
| --- | --- | --- | --- |
| **Response** | **Questions** |  | **Answer Choices** |
| \_\_\_\_\_\_\_\_ | 1. K is the amount in dollars, raised by 500 volunteers
 |  | 1. ***f(K)* = M**
2. ***f(M) =K***
3. ***f(K) = 500***
4. ***f(500) = K***
 |
| \_\_\_\_\_\_\_\_ | 1. $500 is the amount, in dollars, raised by *K* volunteers
 |  |
| \_\_\_\_\_\_\_\_ | 1. *K* is the amount, in dollars, raised by *M* volunteers.
 |  |

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**Exit Ticket:**

**The table shows the number of poses, *p,* that a photographer offers with a maximum of 3 poses per shoot.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***p*** | 0 | 1 | 2 | 3 |
| ***a*** | 15 | 18 | 21 | 24 |

**Part A)** If *a* is a function of *p*, what is the value of *a(3)*?

**Part B)** Is the following statement true? Explain

$a(0) < a(2)$

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Functions Algebra I

**Exit Ticket:**

**The table shows the number of poses, *p,* that a photographer offers with a maximum of 3 poses per shoot.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $$p$$ | 0 | 1 | 2 | 3 |
| $$a$$ | 15 | 18 | 21 | 24 |

**Part A)** If *a* is a function of *p*, what is the value of *a(3)*?

**Part B)** Is the following statement true? Explain.

$a(0) < a(2)$