

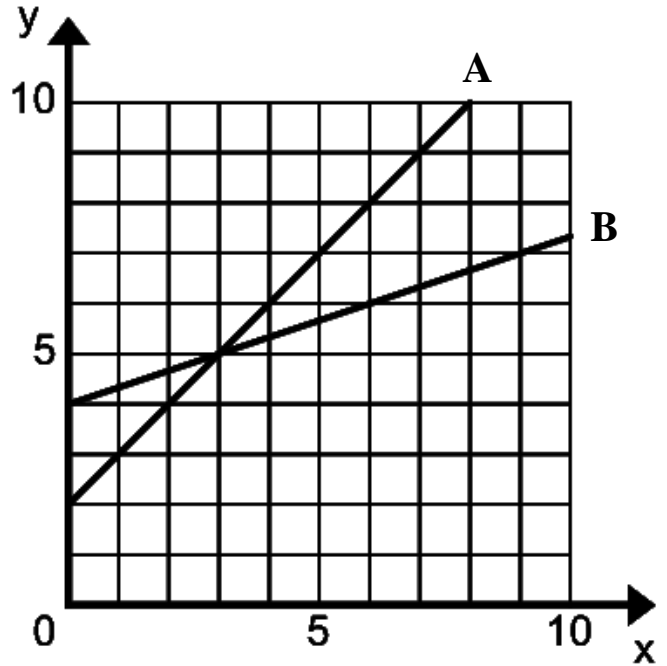
Name: \_\_\_\_\_ Period: \_\_\_\_\_

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# HW 3-6: Compare Properties of Functions

1. Which function has the least rate of change?

2. Which function has the greatest initial value?

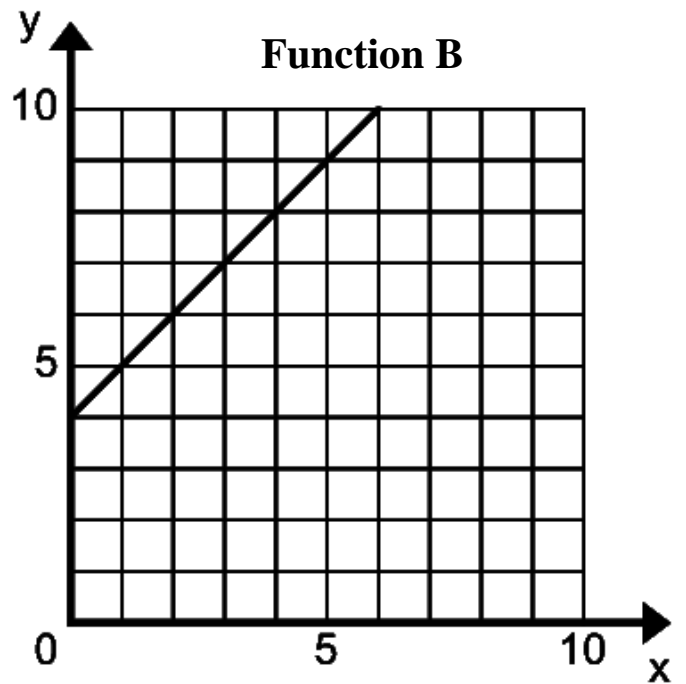


3. Which function has the greatest rate of change?

4. Which function has the greatest initial value?

**Function A**

$$y = 2x - 3$$



5. Which function has the greatest rate of change?

6. Which function has the greatest initial value?

**Function A**

<b>x</b>	-2	0	2	4
<b>y</b>	0	3	6	9

**Function B**

$$y = 3x + 4$$

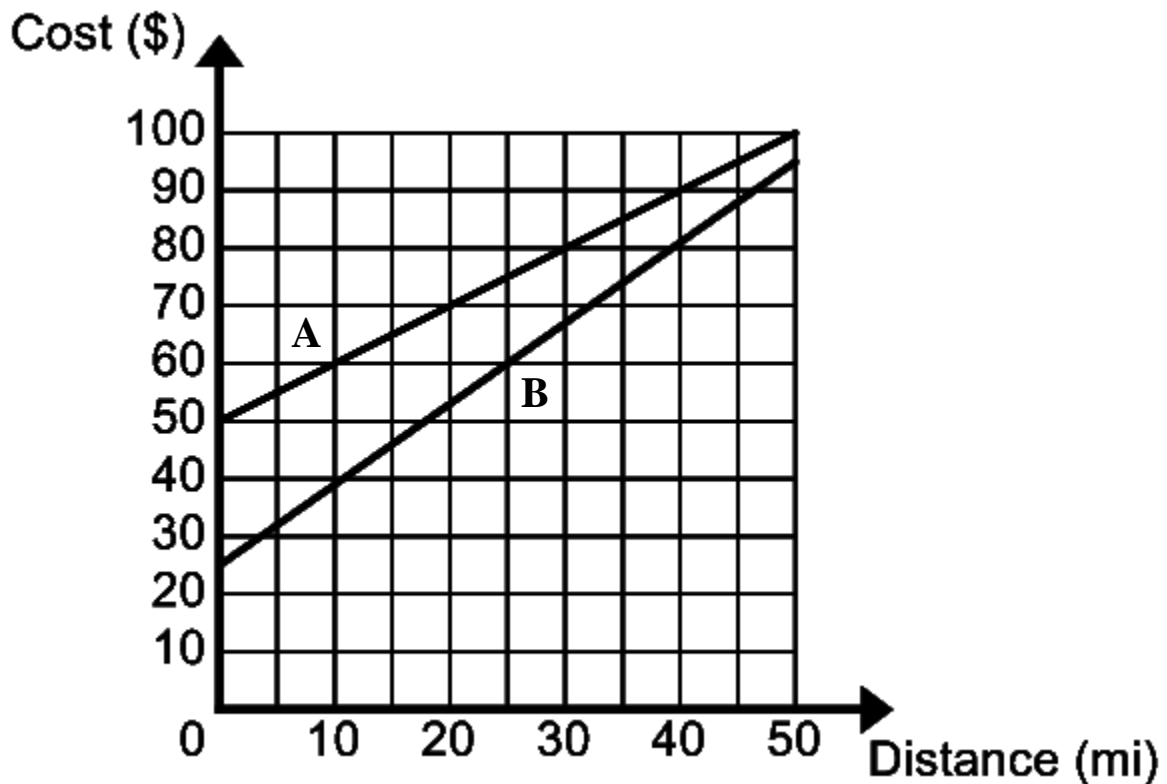
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Your buddy went river rafting last summer from a company that offered various costs represented by the graph below.

7. Which situation cost less if your buddy rafted 10 miles?

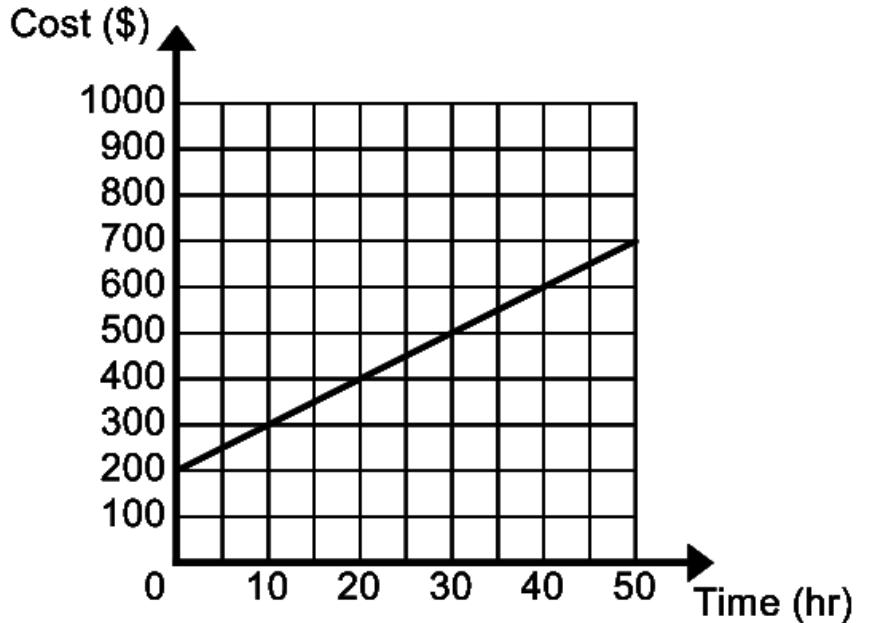
8. Which situation cost less if your buddy rafted 30 miles?

9. Which situation cost less if your buddy rafted 50 miles?



You've got to pay a mechanic to get your speed boat fixed and there are two mechanics in town. Their prices are represented below where  $x$  is the number of hours it takes and  $y$  is the cost.

**“I Only Fix Red Cars” Auto Repair**



**“Usually Not Able To Fix It” Auto Repair**

$$y = 20x$$

10. Which shop costs less for a 10 hour repair?

11. Which shop costs less for a 20 hour repair?

12. Which shop costs less for a 70 hour repair?

Mascara is on sale at two different stores. The prices are represented in the tables below where  $x$  is the number of mascara tubes and  $y$  is the cost in dollars.

**All Up In Ur Face**

<b>x</b>	0	3	6	9
<b>y</b>	0	45	90	135

**Night Eyez**

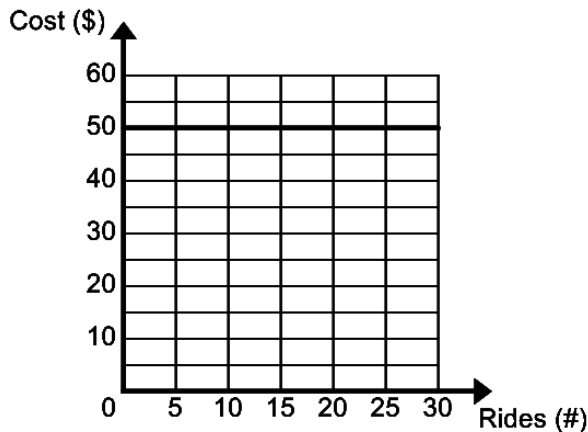
<b>x</b>	0	2	4	6
<b>y</b>	0	160	320	480

13. Which store has the best deal if you want to buy five tubes of mascara?

14. Which store has the best deal if you want to buy one tube of mascara?

There are many amusement parks in Orlando, Florida. Galaxial Studios attracts many customers because of their price points. Continents of Adventure is competitive and very nearby. The park prices are represented below where  $x$  is the number of rides you get and  $y$  is the number of dollars you spend.

### Galaxial Studios



### Continents of Adventure

<b>x</b>	0	5	10	15
<b>y</b>	0	10	20	30

15. Which amusement park should you attend if you plan on riding ten rides?

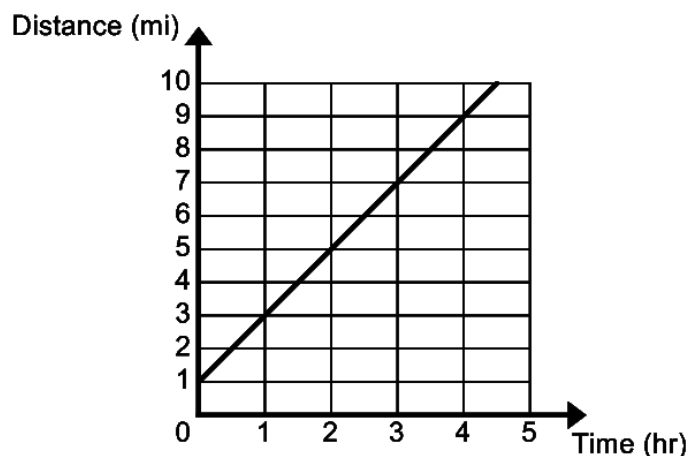
16. Which amusement park should you attend if you plan on riding forty rides?

You and your friend start walking but your friend has a 1 mile head start. How long does it take you to catch up to your friend if  $x$  is the number of hours you've walked and  $y$  is the number of miles?

### You

<b>x</b>	0	1	2	3
<b>y</b>	0	2.5	5	7.5

### Your friend



**17. How long will it take you to catch up to your friend?**