

Scaffolded Practice: Comparing Linear Functions

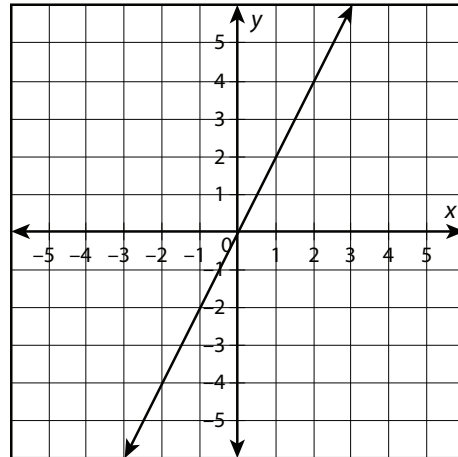
Compare the properties of the following linear functions.

- Which function has the greater rate of change? Which function has the greater y -intercept? Explain how you know.

Function A

x	$f(x)$
-2	-1
2	3
3	4
5	6

Function B

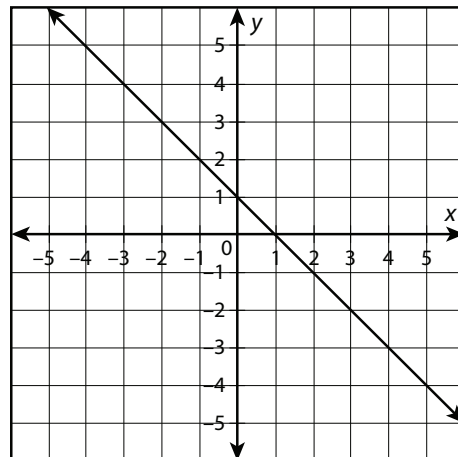


- Which function has the greater rate of change? Which function has the greater y -intercept? Explain how you know.

Function A

x	$f(x)$
-6	15
-1	0
2	-9
4	-15

Function B



continued

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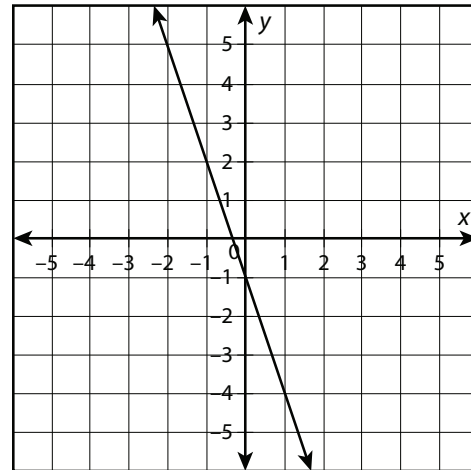
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3. Compare the properties of each function.

Function A

$$f(x) = \frac{1}{3}x - 6$$

Function B

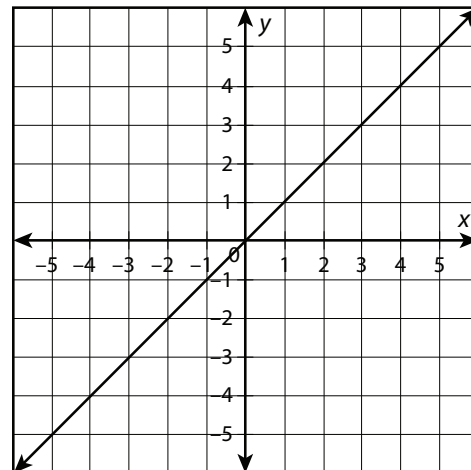


4. Compare the properties of each function.

Function A

$$f(x) = 12x$$

Function B



continued

5. Compare the properties of each function.

Function A

This table describes the amount of profit in dollars a store makes for the number of computers it sells.

Number of computers (x)	Profit ($f(x)$)
0	\$0
5	\$1,000
8	\$1,600
10	\$2,000

Function B

For each phone the store sells, it makes a profit of \$500.

6. Compare the properties of each function.

Function A

A mining company removed 100 tons of dirt in its first year, and 28 tons every subsequent year.

Function B

The function $g(x) = 17 + 56x$ represents the total number of tons removed by a rival mining company in the same time period, where $g(x)$ is the number of tons and x is the number of years since the first year.

continued

7. Compare the properties of each function.

Function A

The following table gives the price in dollars, $f(x)$, a company charges to rent a surfboard for x hours.

Hours (x)	Total cost ($f(x)$)
2	30
3	35
6	50
8	60

Function B

A rival company rents surfboards for \$10 initially and then \$7 per hour.

8. Compare the properties of each function.

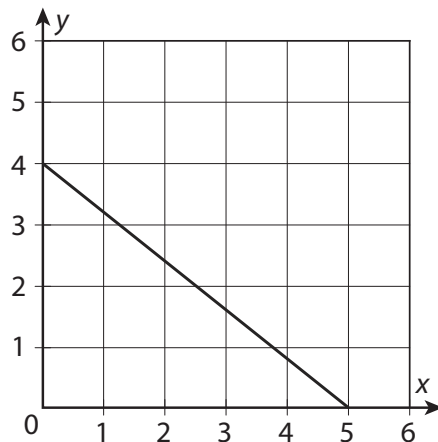
Function A

This table represents the remaining amount of debt in thousands of dollars a person has, $f(x)$, after x months.

Months (x)	Remaining debt in thousands of \$ ($f(x)$)
0	6.6
2	5.8
3	5.4
5	4.6

Function B

This graph shows the remaining amount of debt in thousands of dollars another person has, $g(x)$, after x months.



continued

Name: _____

Date: _____

9. Compare the properties of each function. What do the y -intercept and rate of change mean in each case?

Function A

This table represents the number of apples, $f(x)$, waiting to be picked in an orchard after x days.

Days (x)	Apples ($f(x)$)
0	49
1	43
4	25
7	7

Function B

The function $g(x) = 32 - 4x$ represents the number of apples, $g(x)$, remaining to be picked in a different orchard after x days.

10. Compare the properties of each function. What do the y -intercept and rate of change mean in each case?

Function A

John ran 6 miles last week and plans to run 12 miles each additional week.

Function B

This graph represents the total number of miles, $g(x)$, Grant plans to have run by the end of week x .

