

Name _____

Period _____

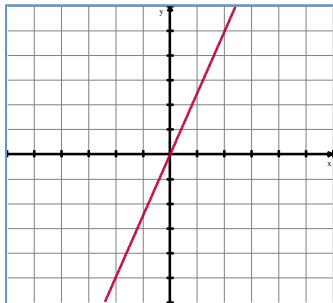
Algebra – Unit 2 Extra Practice

I can determine if a graph represents a function, identify the type of function, and compare graphs to one another.

Original Score

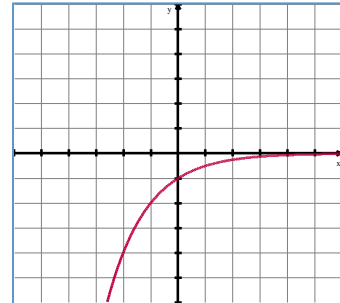
Identify the type of function shown in each graph below. Answer the questions to describe the graph.

1. Graph A – _____ Function



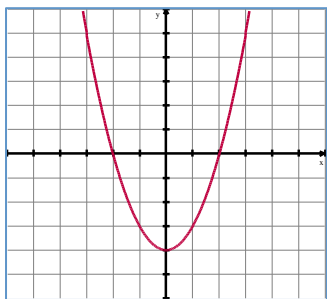
Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

2. Graph B – _____ Function



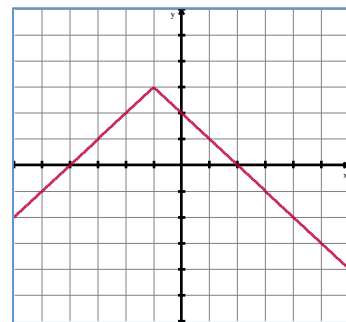
Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

3. Graph C – _____ Function



Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

4. Graph D – _____ Function



Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

Name _____

Period _____

Use your descriptions to help you compare the graphs listed. Be sure to use vocabulary: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change. Please write in complete sentences.

Graph A and Graph B:

Similarities	Differences
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Graph A and Graph C:

Similarities	Differences
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Graph C and Graph D:

Similarities	Differences
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Graph B and Graph C:

Similarities	Differences
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Name _____

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Algebra – Unit 2 Extra Practice

I can determine if a table represents a function, identify the type of function, and compare tables to one another.

Original Score

Identify the type of function shown in each table below. Answer the questions to describe the table.

1. Table A – _____ Function

x	y
-9	40
-7	24
-5	12
-3	4

Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

2. Table B – _____ Function

x	y
-6	6
-5	3
-4	0
-3	3
-2	6

Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

3. Table C – _____ Function

x	y
0	6
1	10
2	30
3	130

Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

4. Table D – _____ Function

x	y
-16	-4
-8	-2
0	0
8	2
16	4

Please write in complete sentences. Is the function: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change.

Name _____

Period _____

Use your descriptions to help you compare the tables listed. Be sure to use vocabulary: increasing, decreasing, not increasing or decreasing, vertex, asymptote, & rate of change. Please write in complete sentences.

Table A and Table B:

Similarities	Differences
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Table A and Table C:

Similarities	Differences
--------------	-------------

Table C and Table D:

Similarities	Differences
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Table B and Table D:

Similarities	Differences
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Name _____

Period _____

Algebra – Unit 2 Extra Practice

I can determine the type of function from an equation.

Identify each of the following equations as linear, absolute value, quadratic, exponential, or other and explain why.

Original Score

1. $y = |7x - 10x|$

Why?

5. $y = \sqrt{7x - 10x}$

Why?

9. $y = -|7x|$

Why?

2. $y = 6x^2 - 20x$

Why?

6. $f(x) = -x$

Why?

10. $y = \frac{1}{7}x - 5$

Why?

3. $y = 3^x - 10$

Why?

7. $y = x - 4x^3$

Why?

11. $f(x) = 7x^4 - 10x + 2$

Why?

4. $g(x) = 5 - 3x^2$

Why?

8. $y = 5^x$

Why?

12. $y = 7x^2 + x$

Why?

Write your own equation for each type:

- 13. Linear:
- 14. Absolute Value:
- 15. Quadratic:
- 16. Exponential:
- 17. Other:

Name _____

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Algebra – Unit 2 Extra Practice

I can determine the rate of change from graphs, tables, and situations in context.

Original Score

Solve the following problems. Make a table to organize your information. Find the rate of change to determine if the situation represents a linear relationship.

1. The Chesterfield Police Department pulled over five people for speeding. A 16-year old was driving 15 mph over the speed limit. An 18-year old was driving 10 mph over the speed limit. A 26-year old was driving 9mph over the speed limit. A 40-year old was driving 21 mph over the speed limit, and a 30-year old was driving 11 mph over the speed limit.

Is this relationship between age and mph over the speed limit linear? **SHOW** why or why not.

IF LINEAR, describe the rate of change in words and predict how many mph over the speed limit a 65-year old would drive.

2. You are sitting in the passenger seat of your mom's car while she is getting gas. You look out the window every few seconds and look at the gas pump, which shows the gallons pumped and the price of the gas at that moment. These are some of the numbers you saw: 5.2 gallons cost \$20.644, 7.1 gallons cost \$28.187, 10 gallons cost \$39.70, and 12.5 gallons cost \$49.625.

Is this relationship between gallons and cost linear? **SHOW** why or why not.

IF LINEAR, describe the rate of change in words and predict how much 20 gallons of gas will cost.

3. You borrowed \$50 from your parents to buy a video game. You are paying them back \$10 a week. Make a table that shows the number of weeks and how much money you still owe your parents.

Is this relationship between the number of weeks and money owed linear? **SHOW** why or why not.

IF LINEAR, describe the rate of change in words and predict how many weeks it will take to pay your parents back.