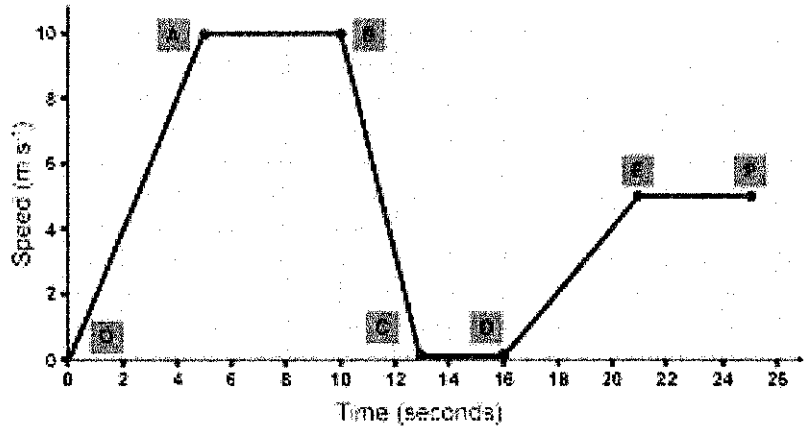


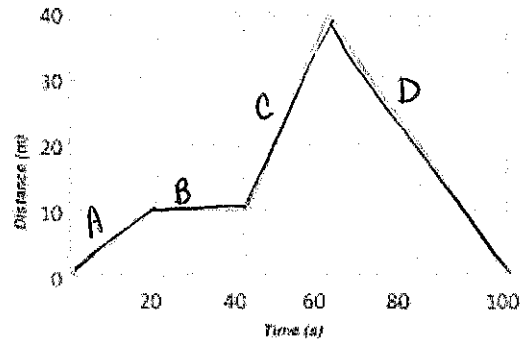
1. Explain what each section of the graph represents in the speed-time graph:

- 0-A _____
- A-B _____
- B-C _____
- C-D _____
- D-E _____
- E-F _____

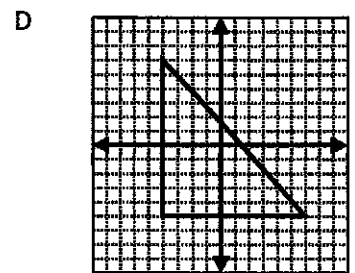
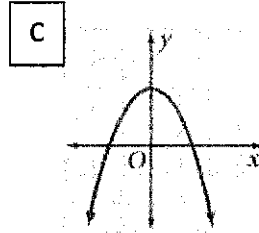
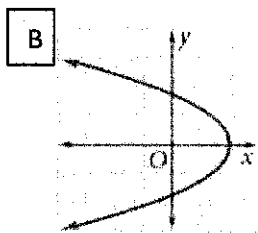
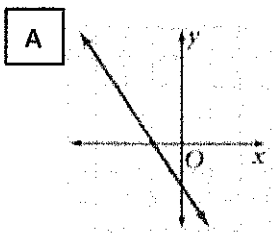


2. Explain what each section of the graph represents in the distance time graph:

- A _____
- B _____
- C _____
- D _____



3. Which of the following is not a function?



4. State the domain and range for graph A: _____

5. State the domain and range for graph B: _____

6. State the domain and range for graph C: _____

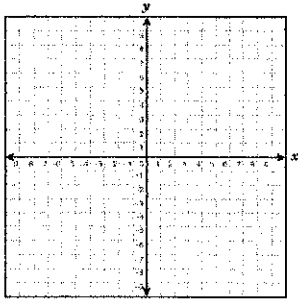
7. State the domain and range for graph D: _____

D. Domain _____ E. Range _____

Families of Functions Review

Quadratic Functions: $y = ax^2 + b$

Graph looks like this:



- Graph is called a _____

How to tell if it opens up or down:

$Y = 3x^2 - 5$ opens _____

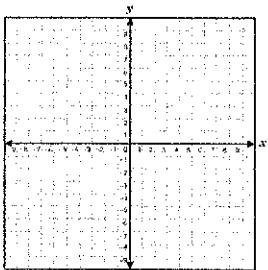
Because _____

$Y = -3x^2 + 5$ opens _____

Because _____

Absolute Value functions: $y = |x|$

Graph looks like this:



How to tell if it opens up or down:

$Y = |-3x| - 5$ opens _____

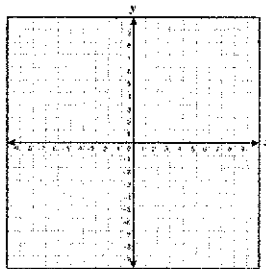
Because _____

$Y = -|-3x| - 5$ opens _____

Because _____

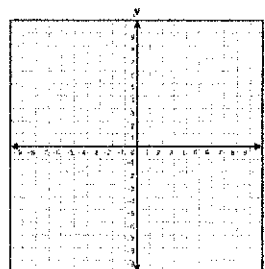
Exponential Functions: $y = a(b)^x$

Graph looks like:



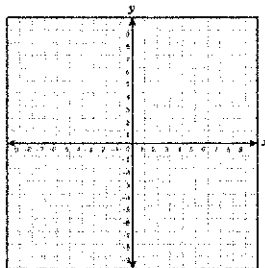
Square root functions: $y = \sqrt{x}$

Graph looks like:



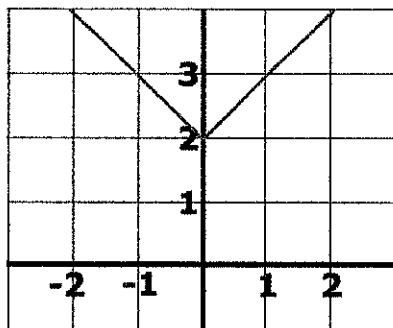
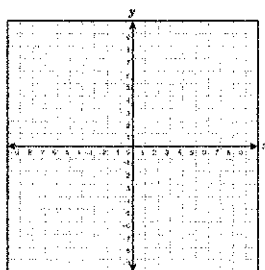
Rational functions: $y = \frac{a}{x}$

Graph looks like:



Linear functions: $y = ax + b$ (or $y = mx + b$)

Graph looks like:



14. this graph is created from which rule?

- A. $y = |x + 2|$
- B. $y = |x - 2|$
- C. $y = |x| + 2$
- D. $y = -|x| + 2$

Examine each of the following tables. Name the family of functions to which each belong. If the function is quadratic or absolute value, also state whether the graph opens up or down.

Linear, Exponential, rational, quadratic (up), quadratic (down), absolute value (up), absolute value (down)

15.

x	-2	-1	0	1	2
y	.25	.5	1	2	4

16.

x	-2	-1	0	1	2
y	16	4	0	4	16

17.

x	-2	-1	0	1	2
y	6	5	4	5	6

18.

x	-2	-1	0	1	2
y	6	2	-2	-6	-10

19.

x	-2	-1	0	1	2
y	-2.5	-5	Error	5	2.5

20.

x	-2	-1	0	1	2
y	1	2	3	2	1

21.

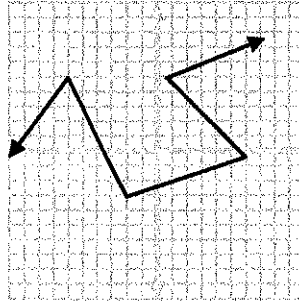
x	-2	-1	0	1	2
y	-12	-3	0	-3	-12

23.

Domain _____

Range _____

Function? _____

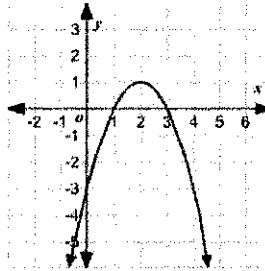


24.

Domain _____

Range _____

Function? _____



25. $\{(-4, 6), (-2, 10), (-4, 3), (0, 10), (2, -4)\}$

Domain _____

Range _____

Function? _____

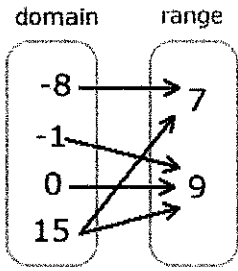
26. $\{(-4, 6), (-2, 6), (0, 3), (0, 10), (2, 6)\}$

Domain _____

Range _____

Function? _____

27.

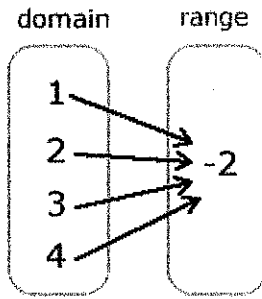


Domain _____

Range _____

Function? _____

28.

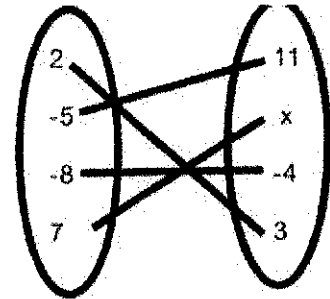


Domain _____

Range _____

Function? _____

29.



Domain _____

Range _____

Function? _____

Explain how you knew which mapping diagram was not a function.

Write a function rule for each table of values:

30.

x	$f(x)$
-2	7
-1	4
0	1
1	-2

31.

x	$f(x)$
-4	8
-2	4
0	0
2	-4

32.

x	$f(x)$
-4	-2
-2	0
0	2
2	4
