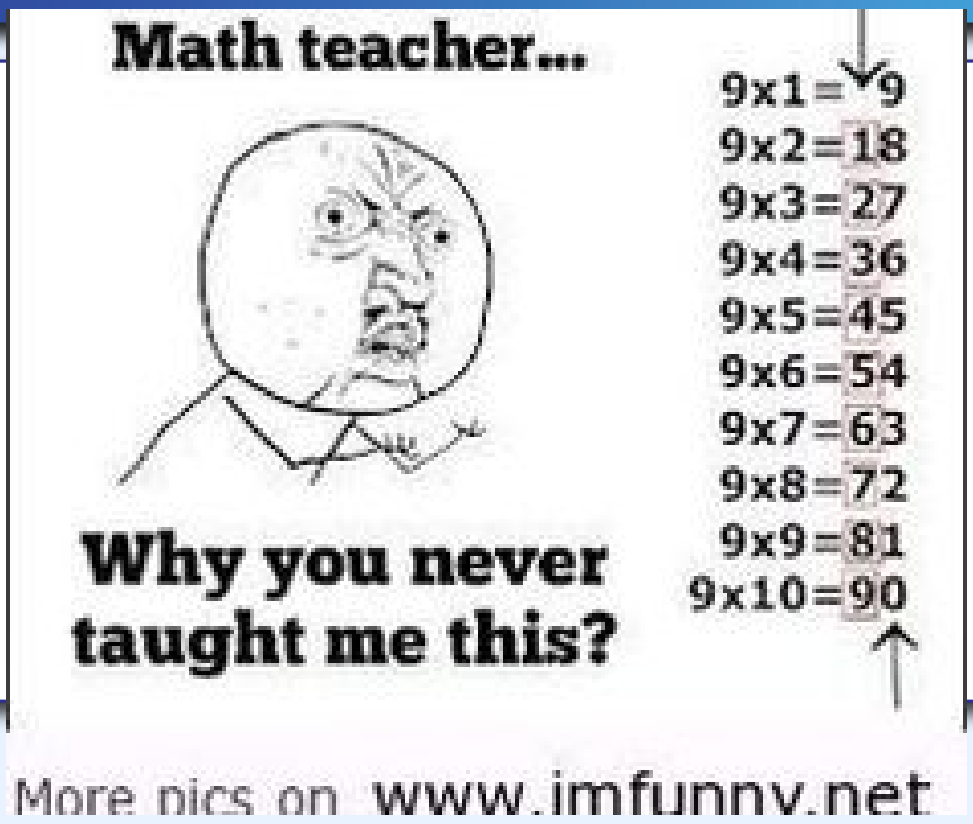
Algebra II

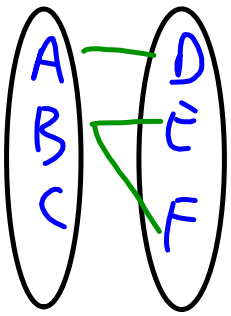
Monday
September 15, 2014



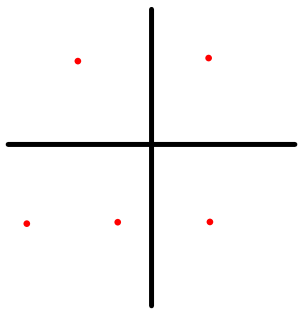
Algebra II Warm-Up

Monday
September 15, 2014

1. What is a function using **mapping**?
2. What is a function using a **table**?
3. What is a function **graphically**?



X	Y
-1	2
0	4
1	6



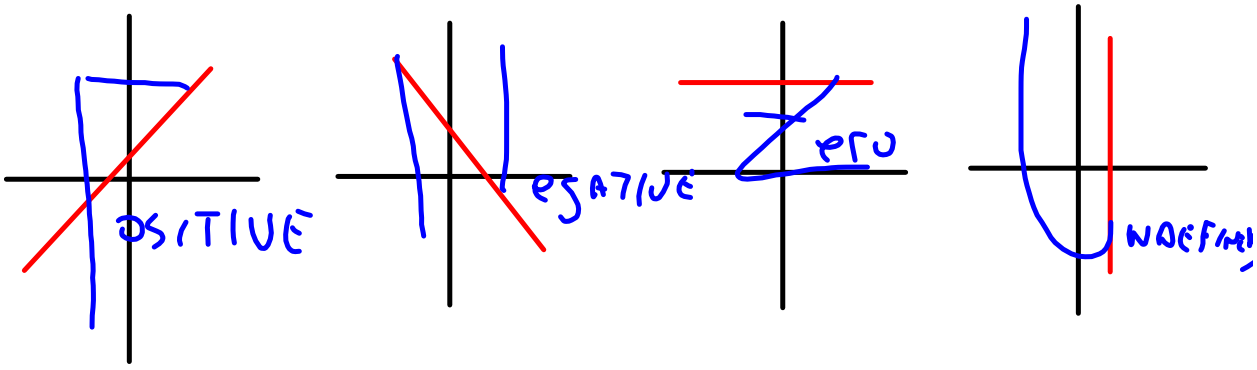
Slopes

b: y-INTERCEPT

$y = mx + b$

m: slope

$\frac{\text{RISE}}{\text{RUN}}$



EOC REVIEW Algebra 1 Reporting Category 1

A.1D	Multiple Representation of functional relationships.

p. 19

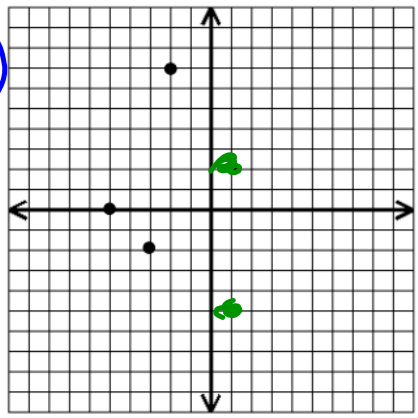
Part I

1. Paul received a gift card for $75 worth of gym visits at World Fitness. The cost of each visit is $2.50. Create a table that best describes *b*, the balance remaining on the gift card after he visits *n* times.

n	*b*
0	75.00
1	72.50
2	70.00
3	67.50
4	65.00

Represent the relation shown in the graph as indicated.

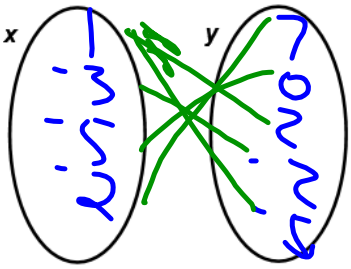
2. ordered pairs: X (1, 2), (-2, 7) (1, -5) (-3, 0), (-3, -2)



3. table:

x	y
-5	0
-3	-2
-2	7
1	2
1	-5

4. mapping:



F NZ U

EOC REVIEW Algebra 1 Reporting Category 1

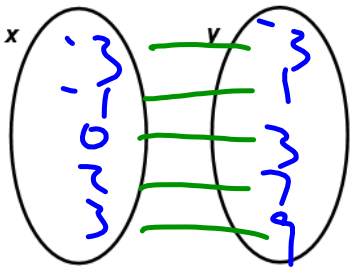
5. ordered pairs:

$\{(-3,-3), (-1,1), (0,3), (2,7), (3,9)\}$

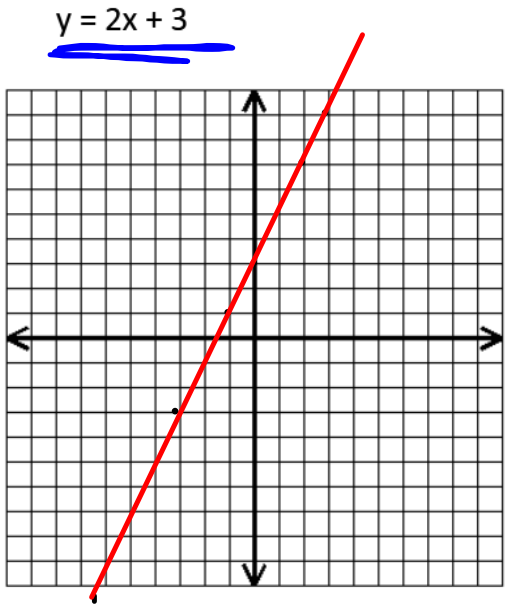
6. table:

x	y
-3	-3
-1	1
0	3
2	7
3	9

7. mapping:



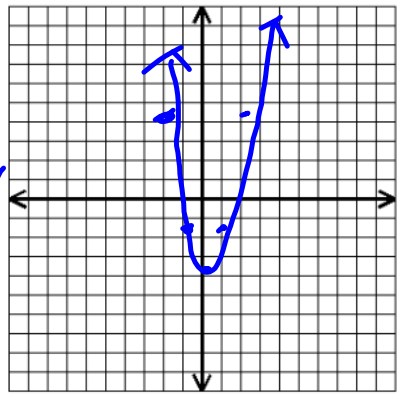
8.



Graph the following functions:

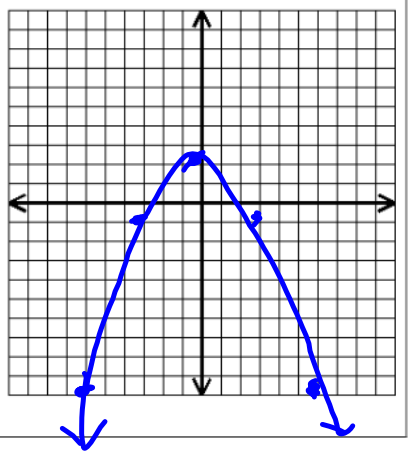
9) $y = 2x^2 - 4$

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

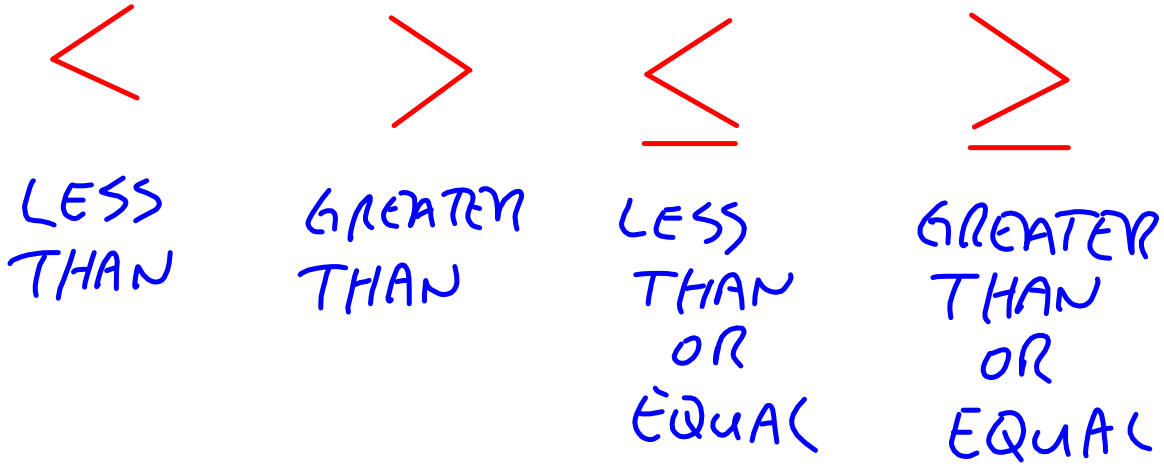


10) $f(x) = -\frac{1}{3}x^2 + 2$

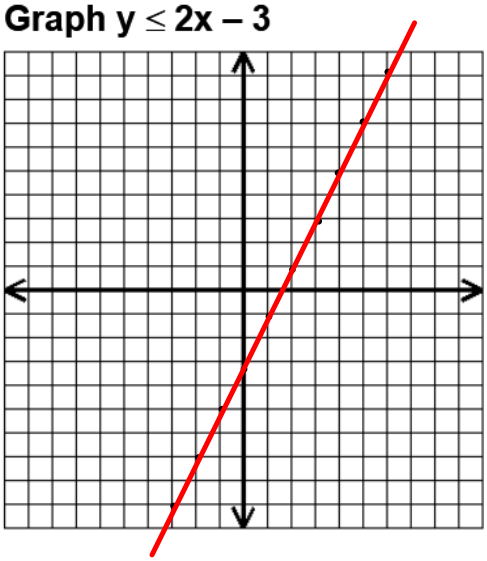
x	f(x)
-6	-10
-3	-1
0	2
3	-1
6	-10



Inequalities



Graph $y \leq 2x - 3$



What would the graph look like for…

$\leq$: SOLID line, shade BELOW

$\geq$: SOLID line, shade ABOVE

$<$: DASHED line, shade BELOW

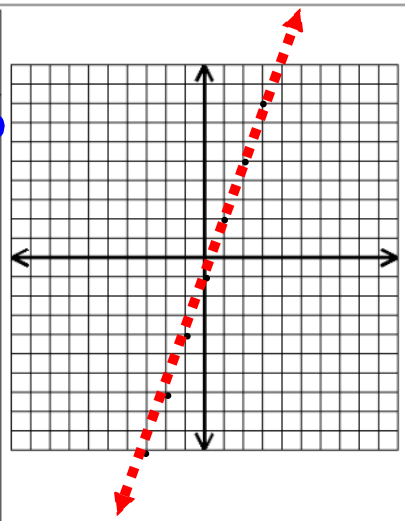
$>$: DASHED line, shade ABOVE

SOLID

DASHED
DOTTED

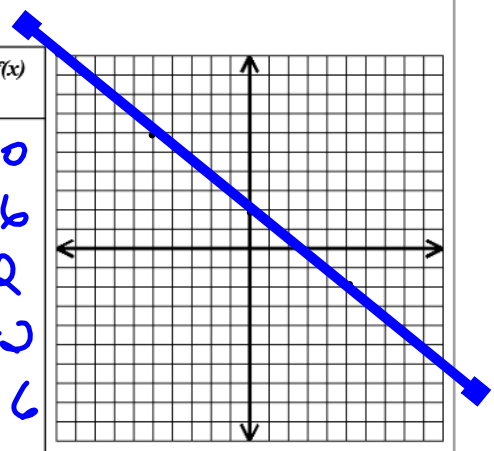
11) $y > 3x - 1$

x	f(x)
-3	-10
-2	-7
-1	-4
0	-1
1	2
2	5
3	8



12) $y \geq -\frac{4}{5}x + 2$

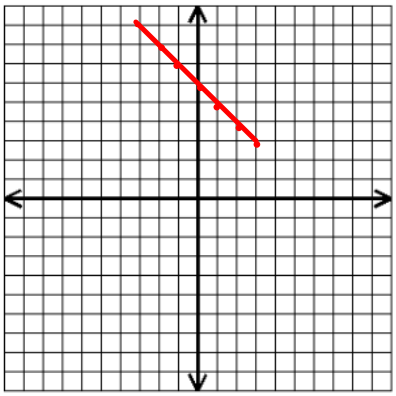
x	f(x)
-10	10
-5	6
0	2
5	-2
10	-6



EOC REVIEW Algebra 1 Reporting Category 1

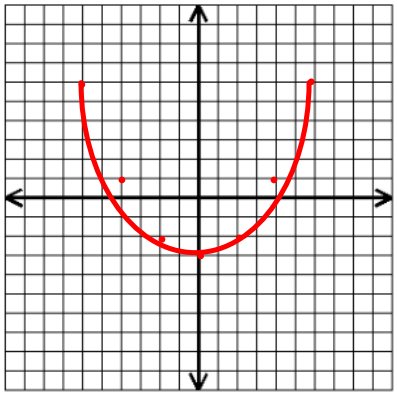
13) $x + y < 6$

x	f(x)
-3	9
-2	8
-1	7
0	6
1	5
2	4
3	3



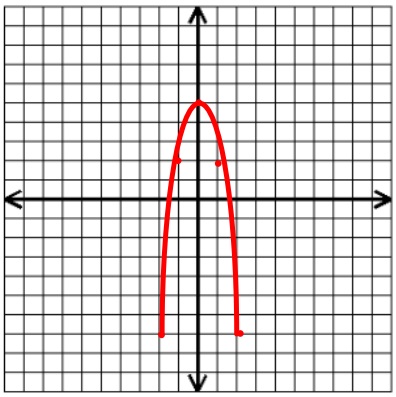
14) $y \leq \frac{1}{4}x^2 - 3$

x	f(x)
-6	6
-4	1
-2	-2
0	-3
2	-2
4	1
6	6



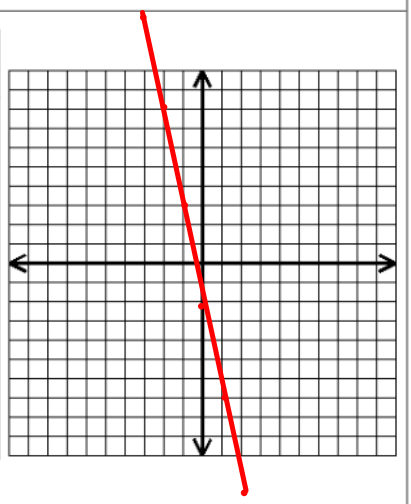
15) $y > -3x^2 + 5$

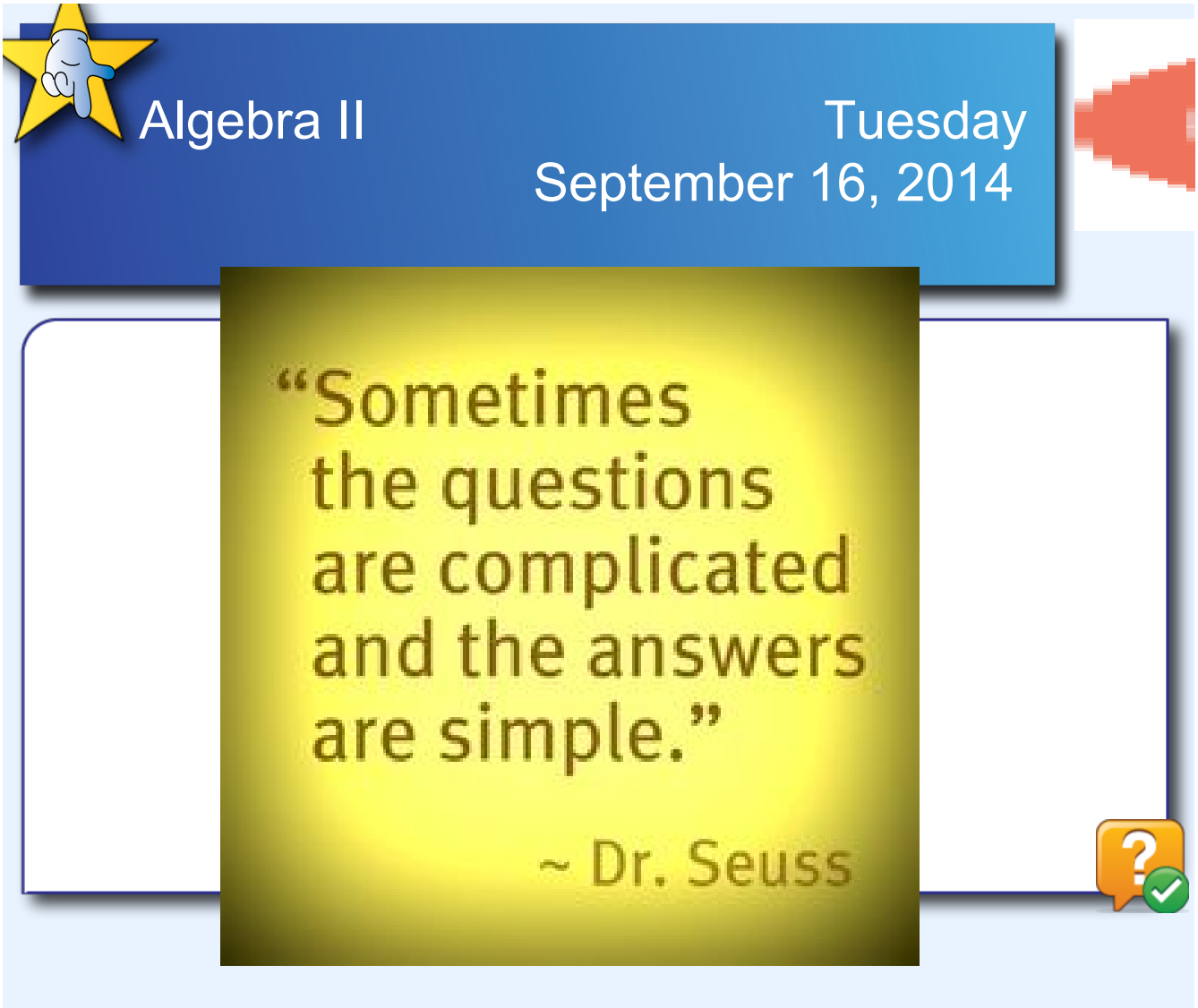
x	f(x)
-2	-7
-1	2
0	5
1	2
2	-7



16) $10x + 2y \geq -4$

x	f(x)
-3	13
-2	8
-1	3
0	-2
1	-7
2	-12




Algebra II
Tuesday
September 16, 2014
"Sometimes the questions are complicated and the answers are simple."
~ Dr. Seuss

Algebra II

Tuesday
September 16, 2014

Review your notes and classwork and get ready for the exam.

Algebra II

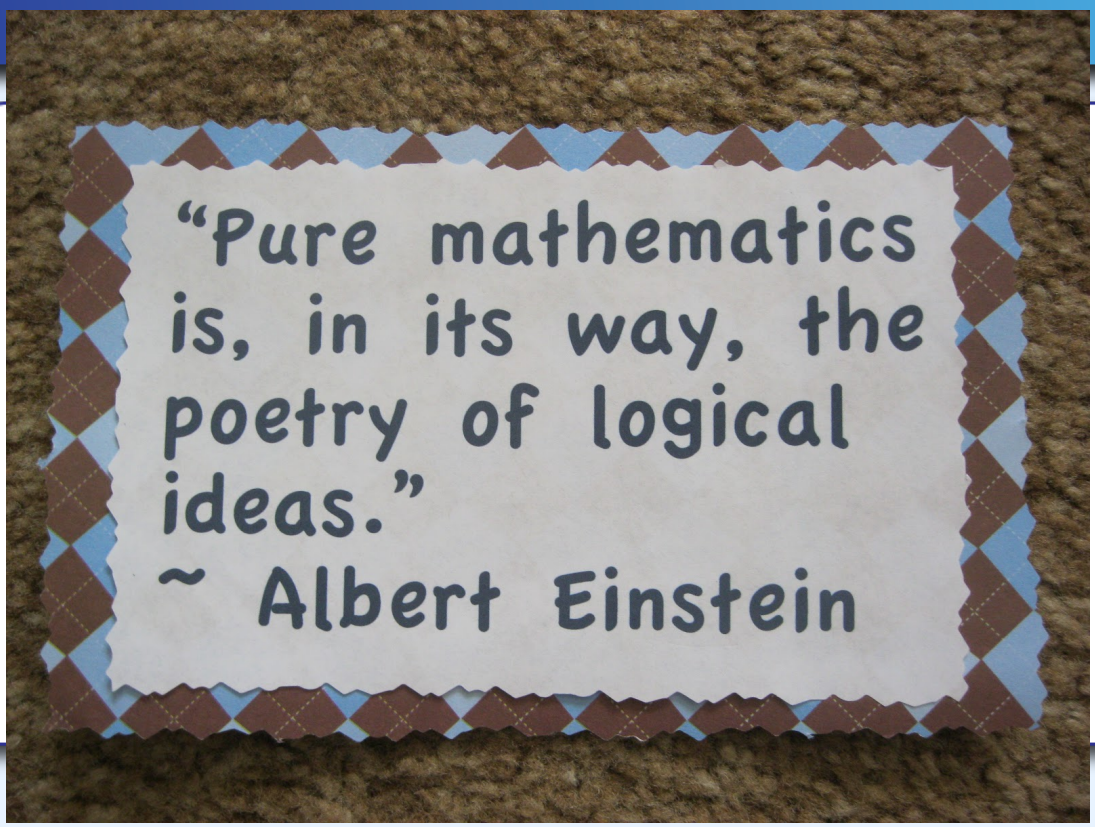
Tuesday
September 16, 2014

CA #1

Only a calculator and a pencil should be on your desk.

Algebra II

Wednesday
September 16, 2014



Algebra II
Warm-Up

Wednesday
September 17, 2014

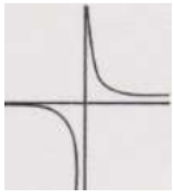
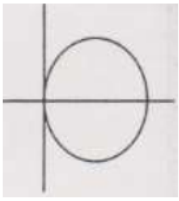
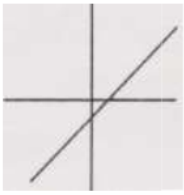
What was the hardest question on CA #1?

Name_____Date_____Pd_____

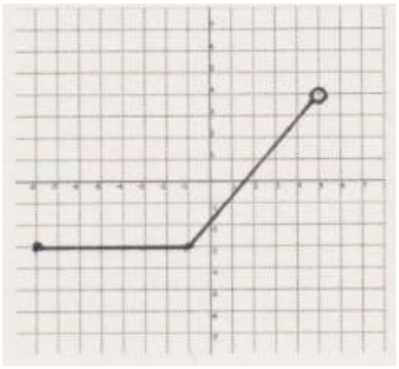
Algebra II CA #1 also complete pgs. 23 and 24 in workbook

1. Complete Pgs. 23 and 24 in workbook

2. Which below is not a function?

A.  B.  C. D. 

3. Describe the slope of the following finction



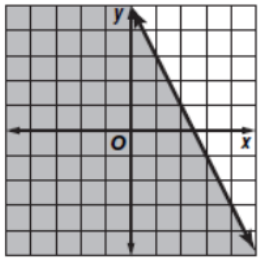
4. What is a **FUNCTION**?

If f(x) = 2x + 7 evaluate the following:

5. f(0) 6. f(-1) 7. f(11)

Part II – Practice Questions

1. Which inequality best describes the graph shown below?



A. $y \leq 5 - 2x$

B. $y \geq 5 - 2x$

C. $y \leq 2 - 5x$

D. $y \geq 5 - 2x$

2. Jerome received a gift card for $20 worth of video rentals from a video store. If the cost of renting a video is $2.50, which table best describes *b*, the balance remaining on the gift card after he rents *n* videos?

A

n	b
0	$20.00
1	$17.50
2	$15.00
4	$10.00
6	$5.00

C

n	b
1	$17.50
2	$15.00
3	$13.50
4	$11.00
5	$8.50

B

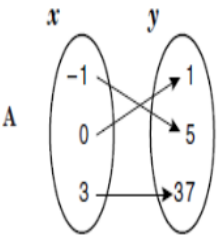
n	b
0	$20.00
2	$17.50
4	$15.00
6	$12.50
8	$10.00

D

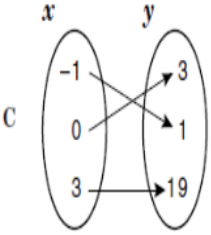
n	b
0	$20.00
1	$15.00
4	$10.00
6	$2.50
8	$0.00

3. Which mapping best represents the function $y = 2x^2 + 1$

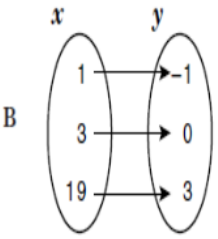
A



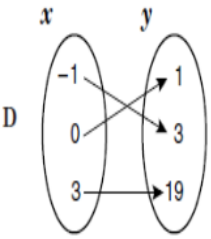
C



B



D



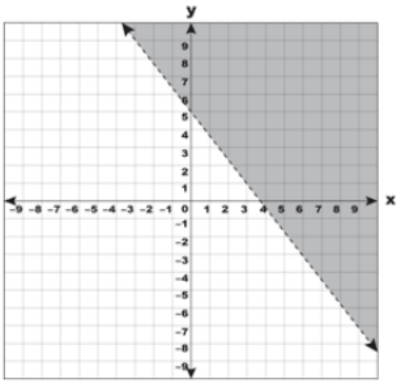
4. Which inequality best describes the graph shown below?

A. $y > -\frac{3}{4}x + 5$

B. $y < -\frac{4}{3}x + 5$

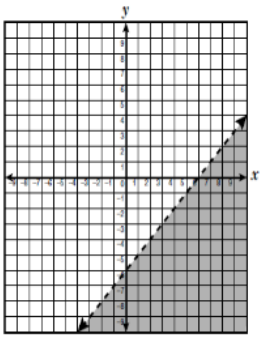
C. $y < -\frac{3}{4}x + 5$

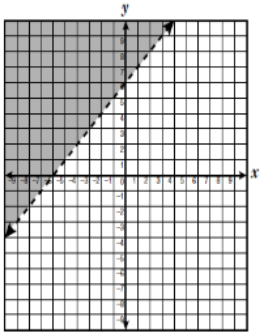
D. $y > -\frac{4}{3}x + 5$

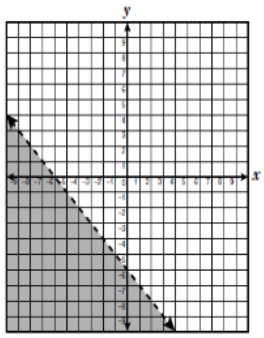


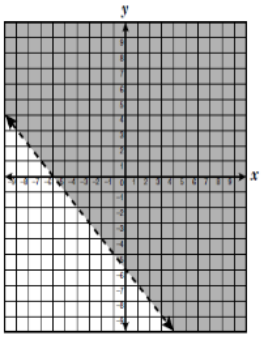
EOC REVIEW Algebra 1 — Reporting Category 1

5. Which graph best represents all the pairs of numbers (x, y) such that $x + y < -6$?

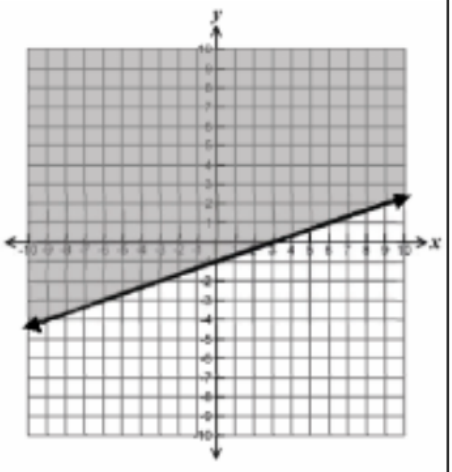
F 

H 

G 

J 

6. Which inequality best describes the graph shown below?



A. $y \geq -3x - 1$

B. $y \geq 3x - 1$

C. $y \geq \frac{1}{3}x - 1$

D. $y \geq -\frac{1}{3}x - 1$

7. Which of the following mappings best represents the function $f(x) = -x^2 + 3$

F

x	$f(x)$
−2	7
1	2
2	
3	6

G

x	$f(x)$
−2	−1
1	2
2	1
3	0

H

x	$f(x)$
−2	−1
1	2
2	
3	−6

J

x	$f(x)$
−1	−2
2	1
−1	2
−6	3

Algebra II

Friday
September 19, 2014

The more that you read,
the more things you will know.
The more that you learn,
the more places you'll go.

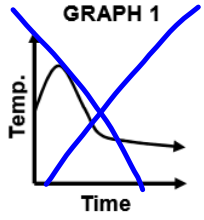
-- Dr. Seuss

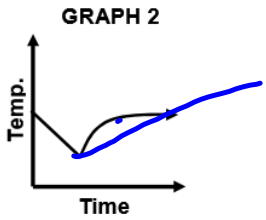
Algebra II Warm-Up

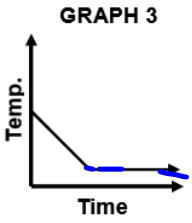
Friday
September 19, 2014

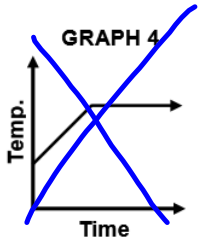
Match each description to its most appropriate graph.

1. 4	In January you enter a cold house and turn up the thermostat to 68°.
2. 1	You put a cup of water in the microwave and heat it for one minute.
3. 2	You put ice cubes in your fruit punch and then drink it slowly.
4. 3	In August you enter a hot house and turn on the air conditioner.

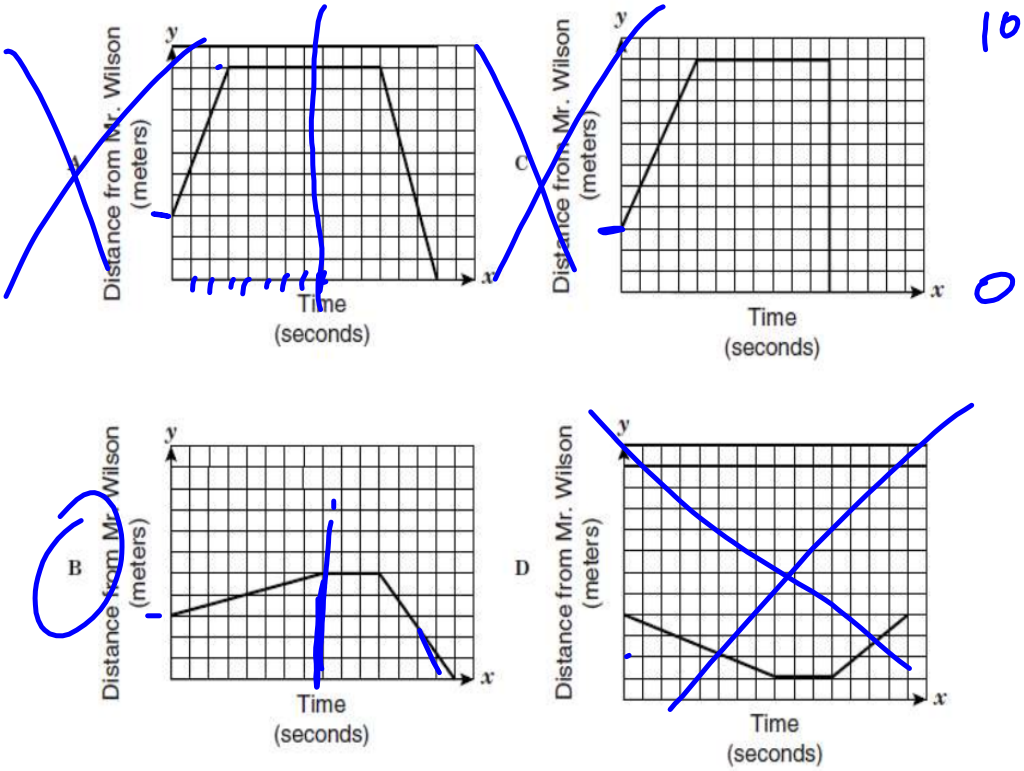








5. Mr. Wilson asked his class to sketch a graph that would present the following activity: "Start 3 meters away from me and slowly walk away for 8 seconds. Then stand for 3 seconds and walk quickly toward me for 3 seconds." Which graph represents this activity?



EOC REVIEW Algebra 1 Reporting Category2

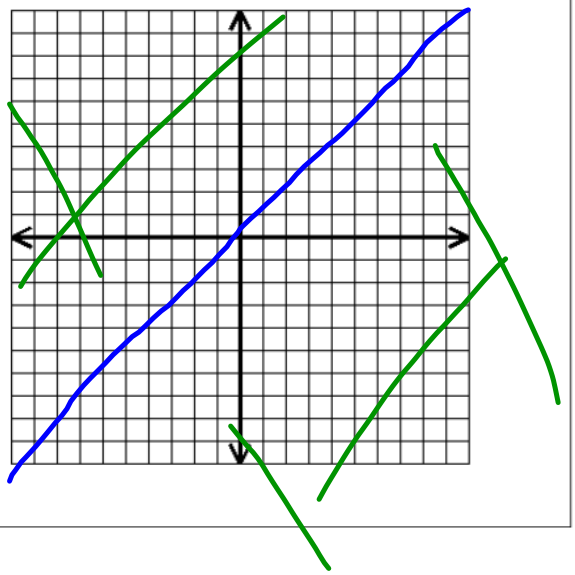
A.2A	General Forms of Linear and Quadratic Functions

Part I

LINEAR PARENT FUNCTION $f(x)=x$

GRAPH $f(x)=x$

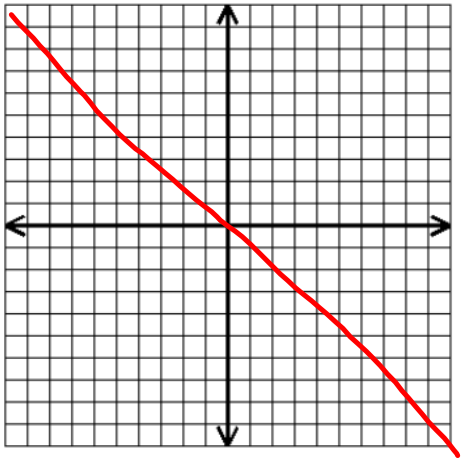
x	$f(x)=x$	y
-3		-3
-2		-2
-1		-1
0		0
1		1
2		2
3		3



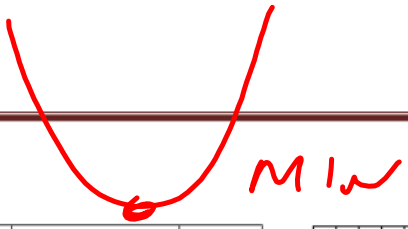
Graph $f(x)=-x$

How does this graph compare to the parent graph?

x	$f(x)=-x$	y
-3		3
-2		2
-1		1
0		0
1		-1
2		-2
3		-3



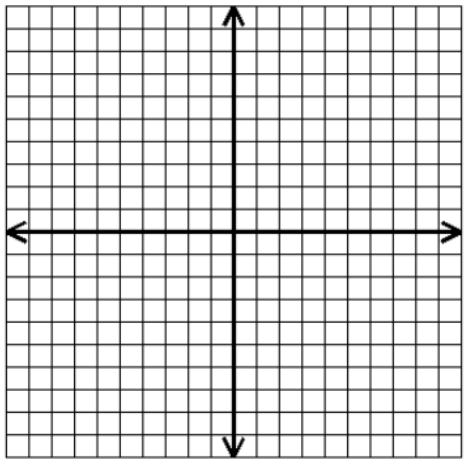
EOC REVIEW Algebra 1 Reporting Category2



Graph $f(x)=x-3$

How does this graph compare to the parent graph?

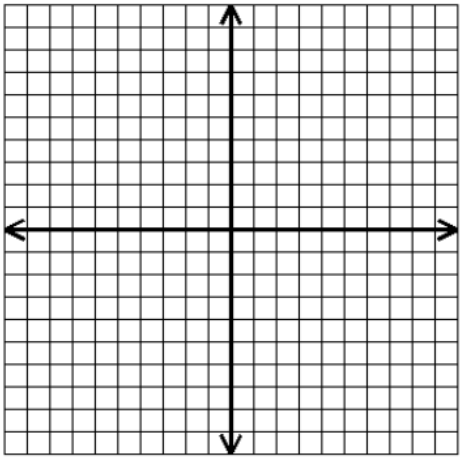
x	$f(x)=x-3$	y
-4		
-2		
0		
2		
4		
6		
8		



Graph $f(x)=\frac{1}{2}x+2$

How does this graph compare to the parent graph?

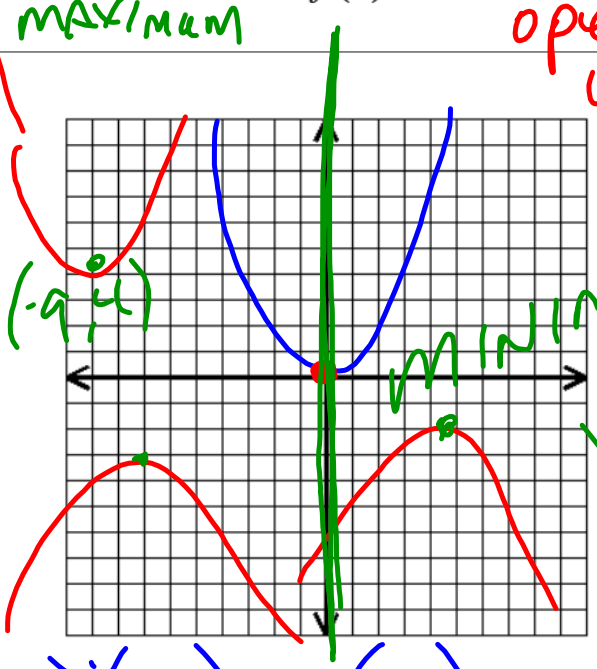
x	$f(x)=\frac{1}{2}x+2$	y
-10		
-6		
-2		
0		
2		
6		
10		



QUADRATIC PARENT FUNCTION $f(x) = x^2$

GRAPH $f(x) = x^2$

x	$f(x) = x^2$	y
-3		9
-2		4
-1		1
0		0
1		1
2		4
3		9

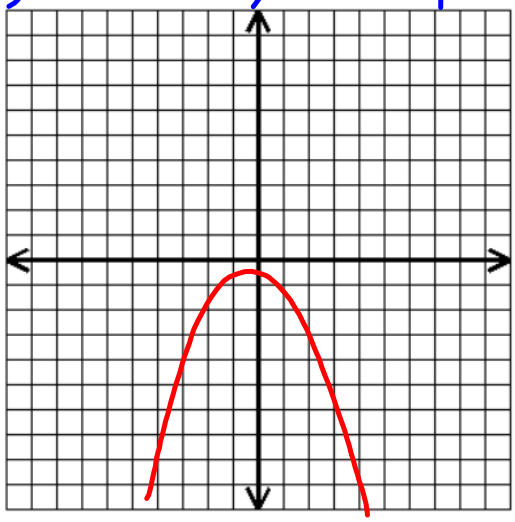


$-(-3)(-3) = -(9) = -9$

Graph $f(x) = -x^2$

How does this graph compare to the parent graph?

x	$f(x) = -x^2$	y
-3		-9
-2		-4
-1		-1
0		0
1		-1
2		-4
3		-9



$-9x^2 \cap$

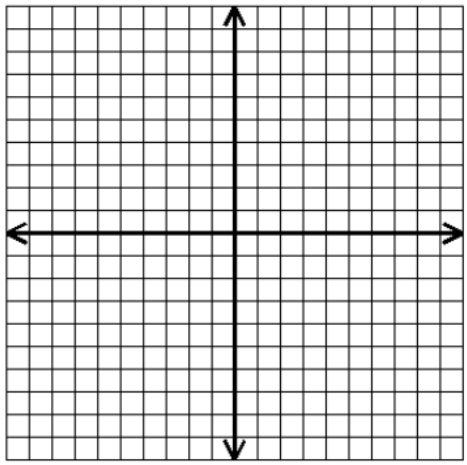
$\frac{1}{10}x^2 \cup$ $-.526x^2 \cap$

EOC REVIEW Algebra 1 Reporting Category2

Graph $f(x) = (x-3)^2$

How does this graph compare to the parent graph?

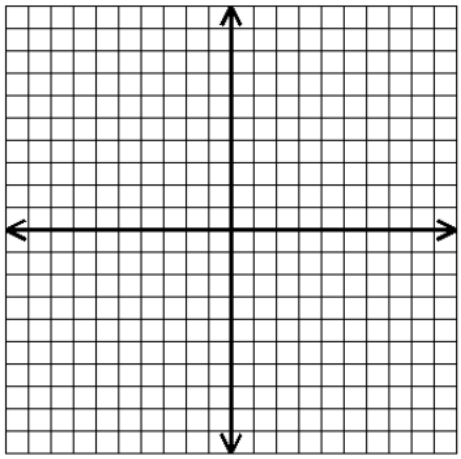
x	$f(x) = (x-3)^2$	y
0		
1		
2		
3		
4		
5		
6		



Graph $f(x) = x^2 + 2$

How does this graph compare to the parent graph?

x	$f(x) = x^2 + 2$	y
-2		
-1		
0		
1		
2		



1. Which of these are characteristics of the parent function of a quadratic equation?

I. The parent function of a quadratic equation has the vertex at (0,0).

II. The parent function of a quadratic equation opens upward.

III. The parent function of a quadratic equation has the y-axis as its line of symmetry.

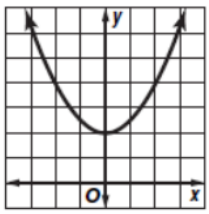
A. I and II only

B. I and III only

C. II and III only

D. I, II, and III

2. Which equation is the parent function of the graph represented below?



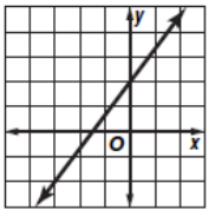
A. $y = \sqrt{x}$

B. $y = x^2$

C. $y = x$

D. $y = |x|$

3. Which equation is the parent function of the graph represented below?



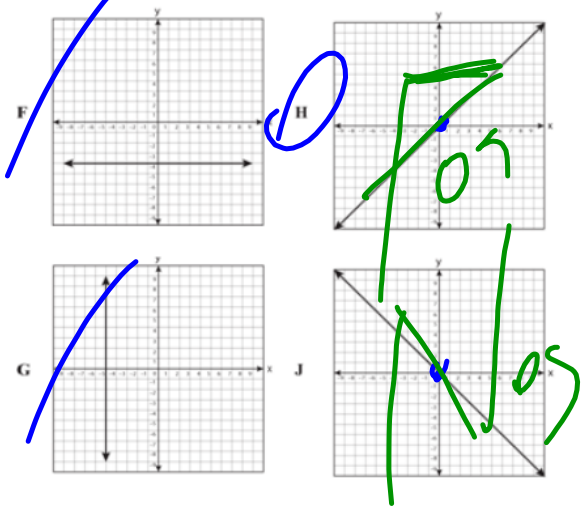
A. $y = x^2$

B. $y = x$

C. $y = |x|$

D. $y = \sqrt{x}$

4. Which graph best represents the linear parent function?



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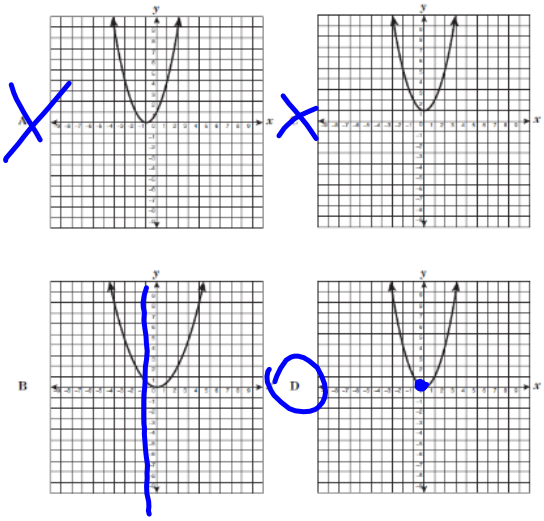
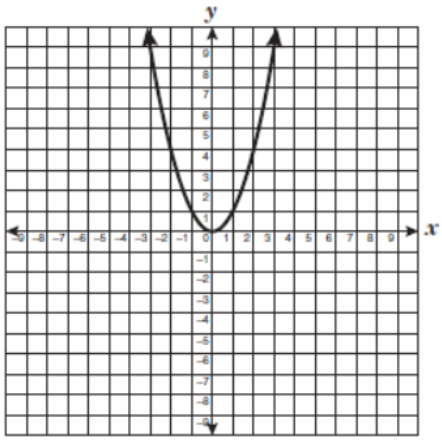
5. Which graph best represents the quadratic parent function?



6. Which type of parent function is represented by the function graphed below?



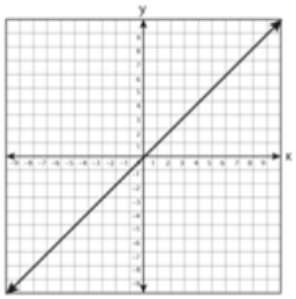
A. Exponential

B. Quadratic

C. Linear

D. Absolute Value

7. Which type of parent function is represented by the function graphed below?



A. Quadratic

B. Absolute Value

C. Exponential

D. Linear

8. Which of the following represents the parent function of $y = x^2 - 2x - 15$?

A $y = x$

B $y = x^2 - 15$

C $y = x^2$

D $y = -2x$

9. Which equation is the parent function of a linear equation?

A. $y = x$

B. $y = \sqrt{x}$

C. $y = |x|$

D. $y = x^2$

Algebra II

Friday
September 19, 2014

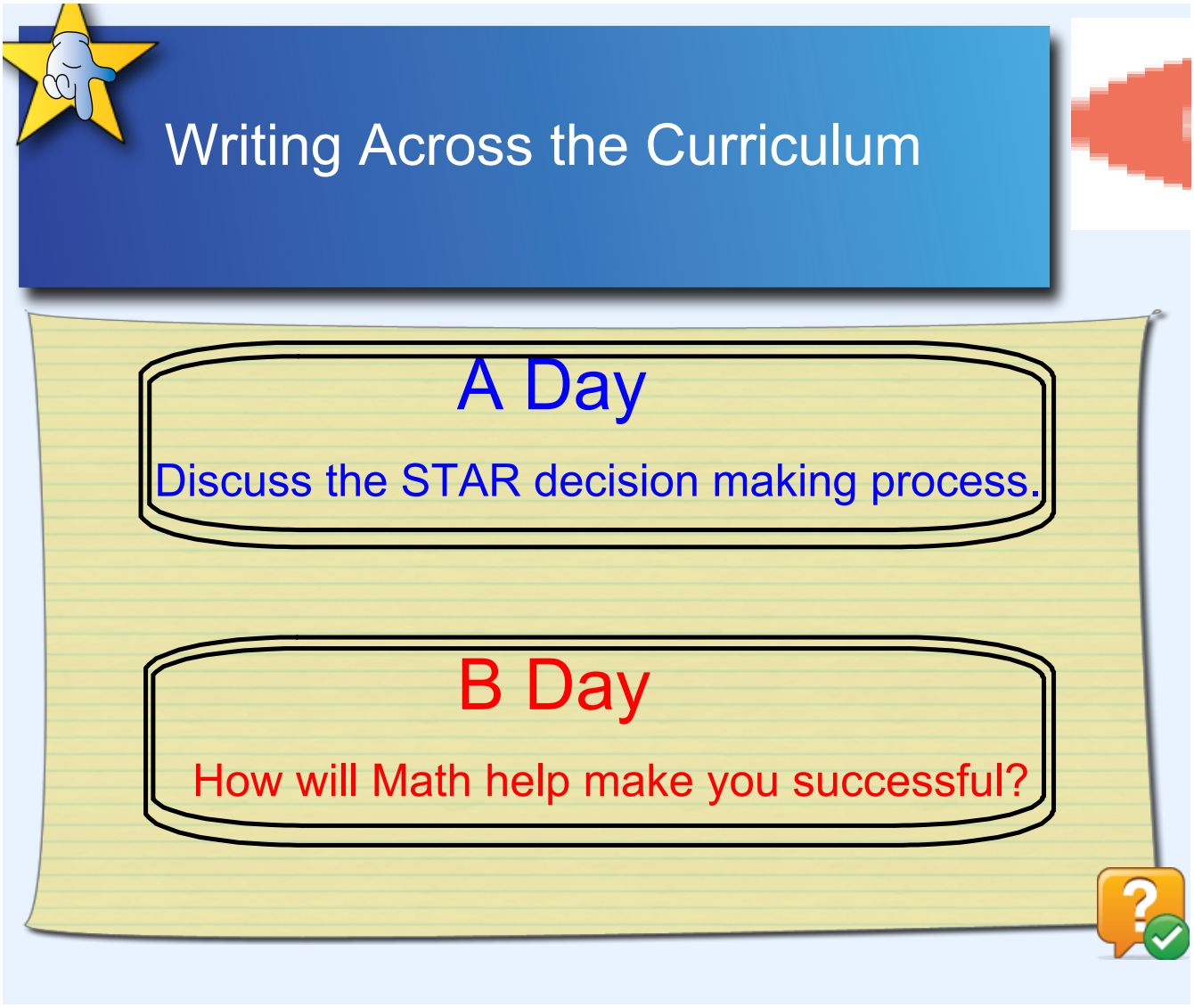
Review your data from the last STAAR or TAKS exam.

Algebra II

Friday
September 19, 2014

STAAR students will work on the KHAN Academy.

TAKS students will work on TAKS handouts.


Writing Across the Curriculum
A Day
Discuss the STAR decision making process.
B Day
How will Math help make you successful?

STAR

S = STOP I **STOP** to give myself time to think before I choose an action or behavior.

T = THINK I **THINK** to become aware of my choices or alternatives.

A = ACT I **ACT** responsibly by considering the alternatives and consequences of my actions.

R = REVIEW I **REVIEW** my actions to evaluate if they got me closer or further from my goals.

12 STEPS TO SUCCESS

1. BE CONFIDENT
2. BE RESPONSIBLE
3. BE HERE
4. BE ON TIME
5. BE FRIENDLY
6. BE POLITE
7. BE PREPARED
8. BE LISTENER
9. BE A DOER
10. BE A TOUGH WORKER
11. BE A RISK TAKER
12. BE A GOAL SETTER