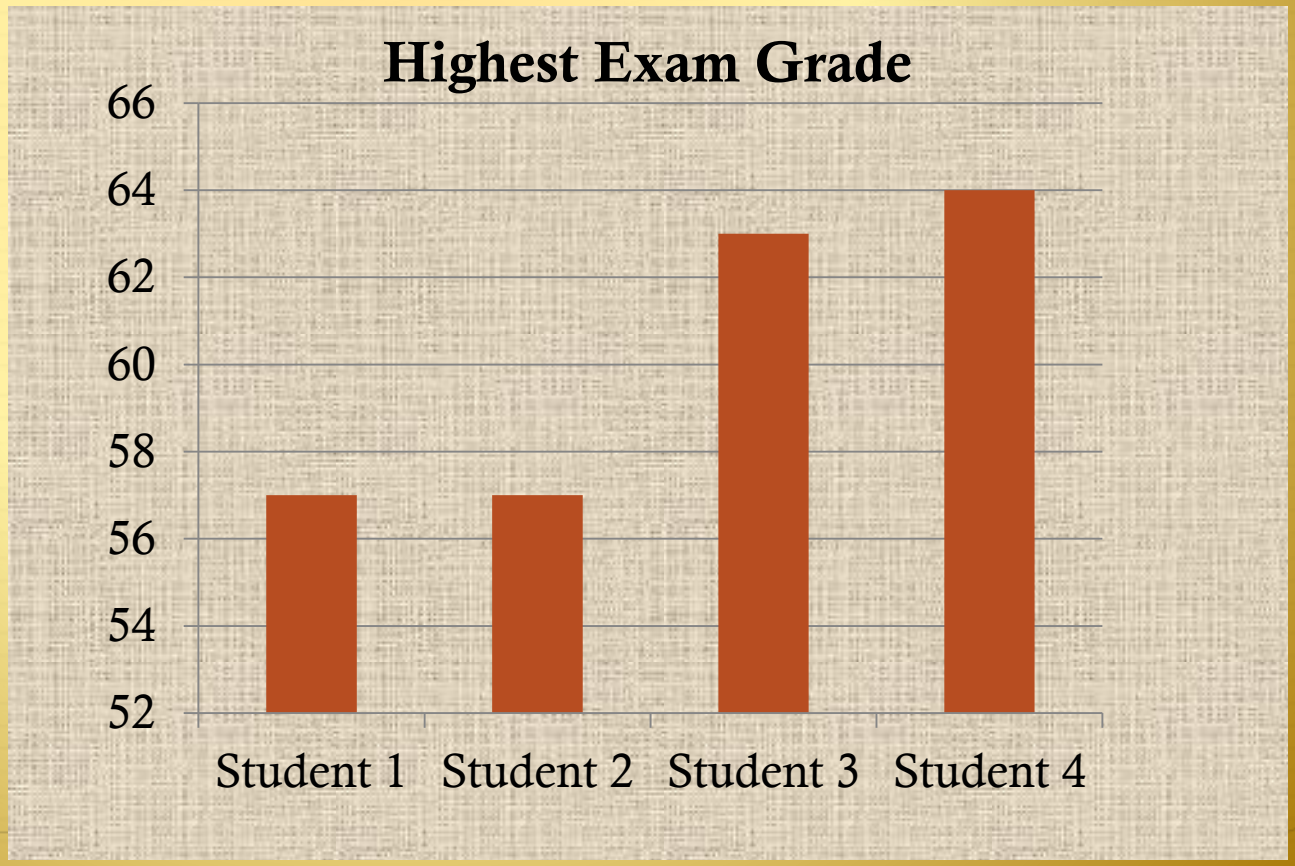
Exam Literacy

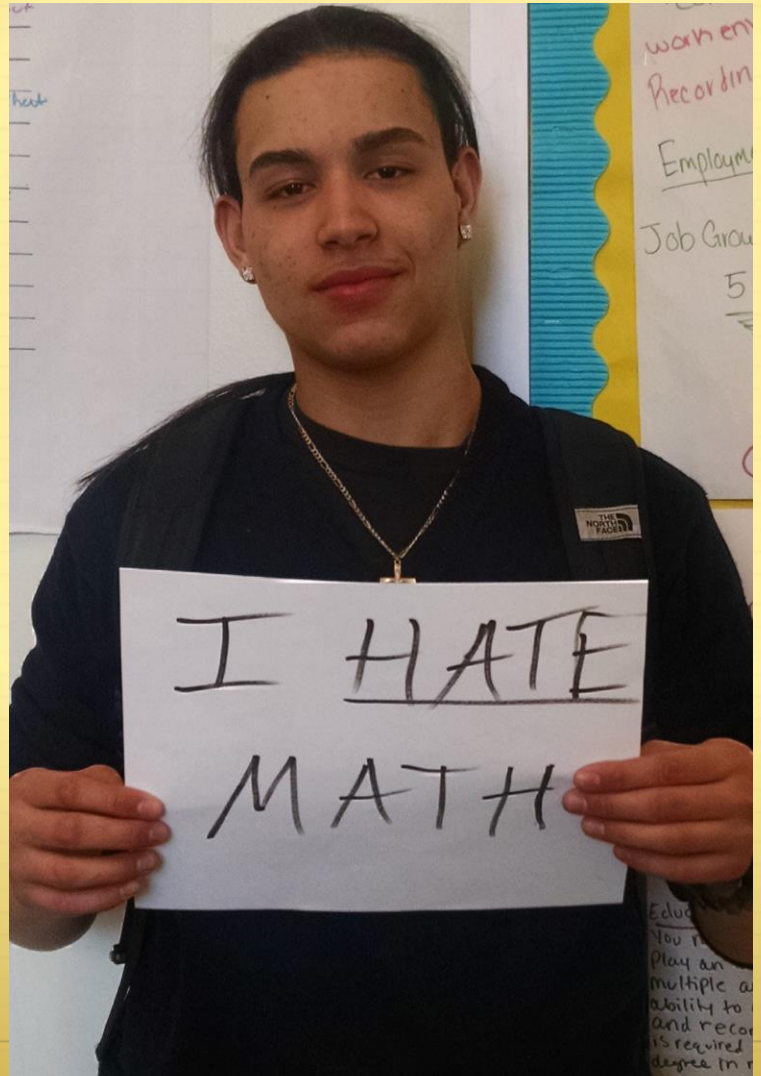
A ticket out of developmental mathematics

My Students

- All failed Algebra state exam 2 or more times
- Passed all other exams



Student Standpoint

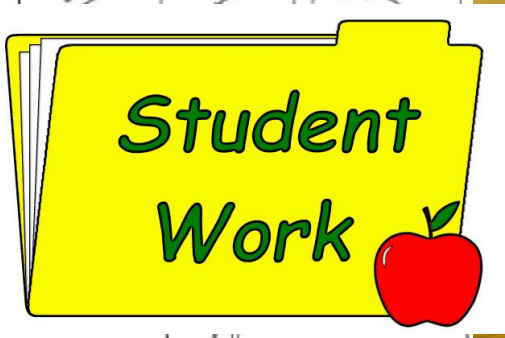


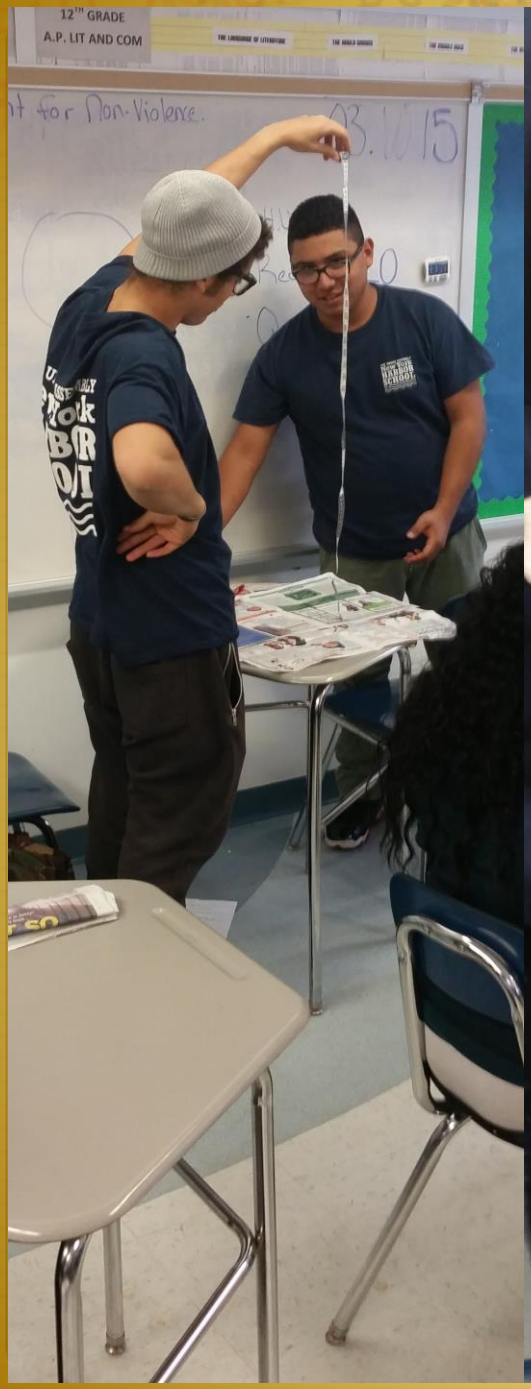
Monitoring Progress

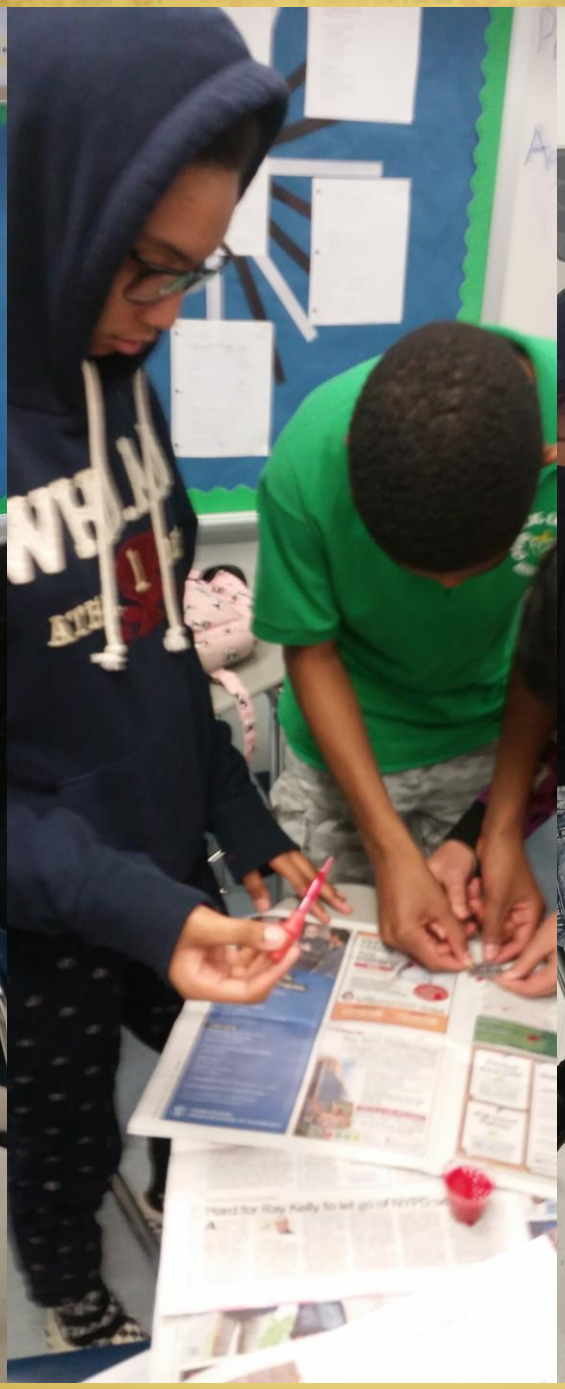
ORGANIZATION AND DISPLAY OF DATA		ATTEMPTS 1st	ATTEMPTS 2nd	ATTEMPTS 3rd	GRADE
A.S.1	Categorize data as qualitative or quantitative.	9/11 82	11/11 100		91
A.S.2	Determine whether the data to be analyzed is univariate or bivariate.	3/5 60	3/5 60	5/5 100	73
A.S.3	Determine when collected data or display of data may be biased.	5/10 50	6/10 60	7/10 70	70
A.S.4	Compare and contrast the appropriateness of different measures of central tendency for a given data set.	10/13	13/13		87
A.S.5	Construct a histogram, cumulative frequency histogram, and a box-and-whisker plot, given a set of data.	5/9	9/9		77
A.S.6	Understand how the five statistical summary (minimum, maximum, and the three quartiles) is used to construct a box-and-whisker plot	12/12 100			100
A.S.7	Create a scatter plot of bivariate data.	3/3 100	3/3	3/3	100
A.S.8	Construct manually a reasonable line of best fit for a scatter plot and determine the equation of that line.	1/3	2	3	

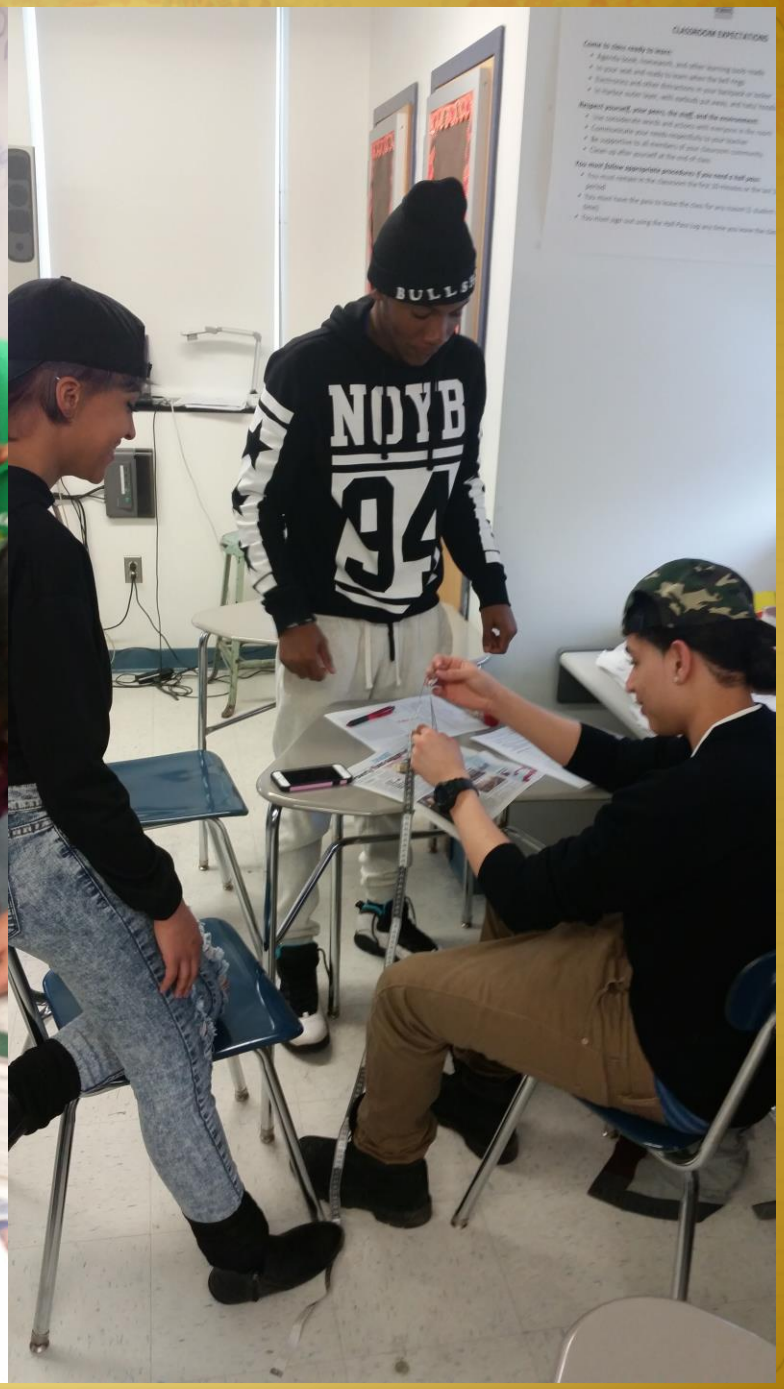
REFLECTION (What did I do well? What do I need to improve on? What questions do I still have?)

Great start for me but still bad in some parts. Line of best fit isn't one line where can just put a simple line of "best fit."




12TH GRADE
A.P. LIT AND COM

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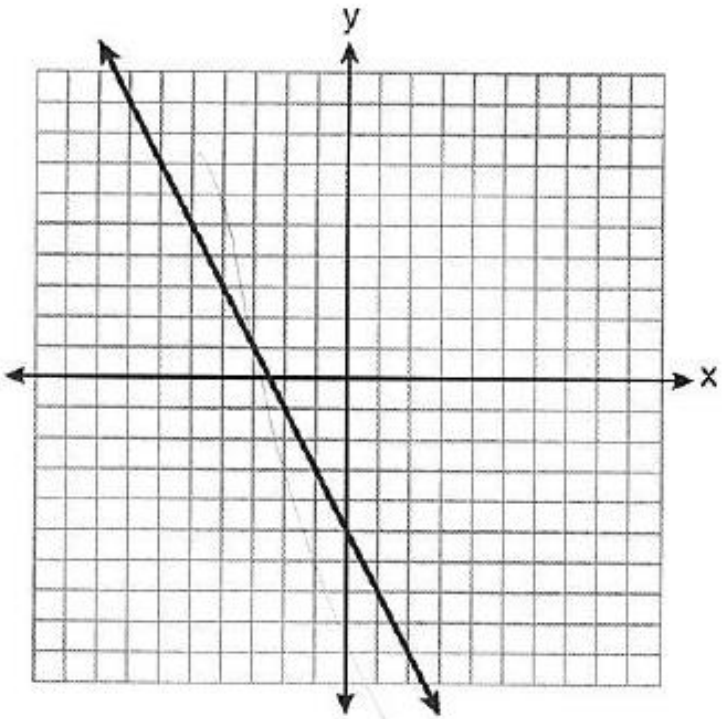
The test is coming!!!
The test is coming!!!

What is the test testing?

Decoding: What is the question asking?

Which equation is represented by the graph below?

computations.



(1) $2y + x = 10$

(2) $y - 2x = -5$

(3) $-2y = 10x - 4$

(4) $2y = -4x - 10$

Equations (linear)

Student Work

What is the major topic?

Which expression represents $\frac{x^2 - 3x - 10}{x^2 - 25}$ in simplest form?

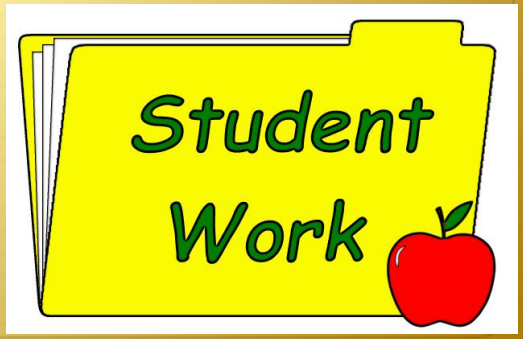
(1) $\frac{2}{5}$

(2) $\frac{x + 2}{x + 5}$

(3) $\frac{x - 2}{x - 5}$

(4) $\frac{-3x - 10}{-25}$

Expression



What is knowledge does this rely on?

What is the solution set of the system of equations $x + y = 5$ and $y = x^2 - 25$?

(1) $\{(0,5), (11,-6)\}$

(2) $\{(5,0), (-6,11)\}$

(3) $\{(-5,0), (6,11)\}$

(4) $\{(-5,10), (6,-1)\}$

mx+b

y=

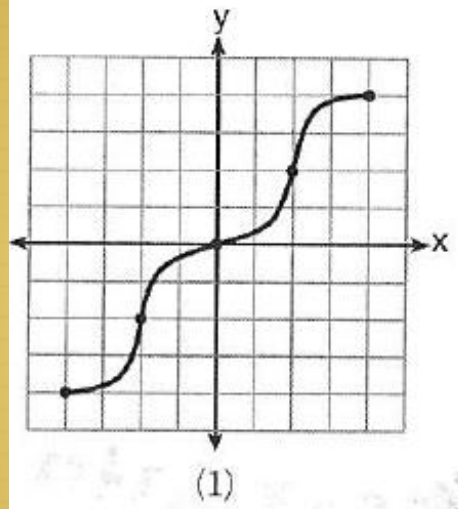
* calculator

Equations

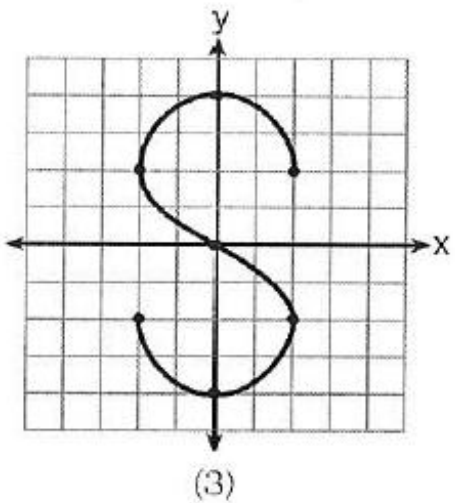
Student Work

Have you seen a question like this before?

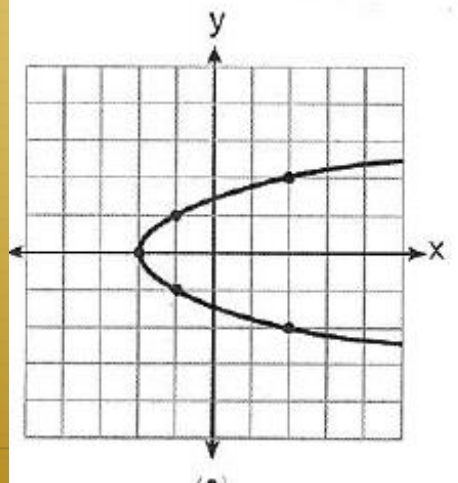
Which graph represents a function?

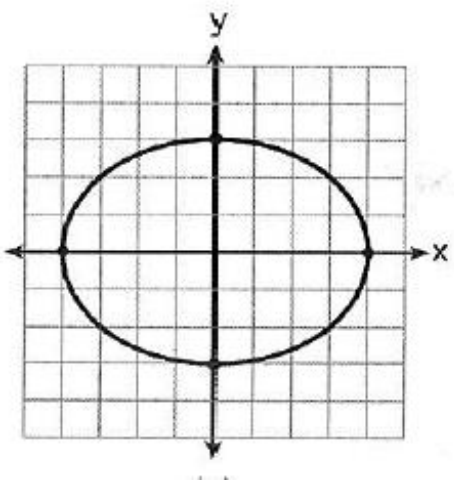


(1)

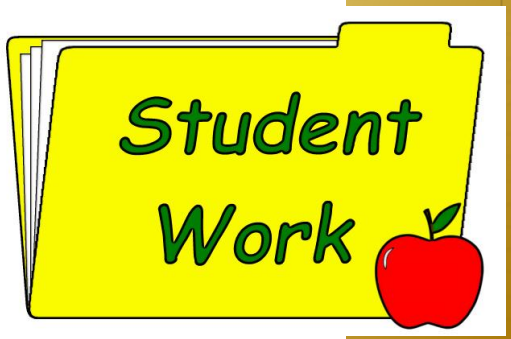


(3)





Functions



What are the patterns in this type of question?

The cumulative frequency table below shows the length of time that 30 students spent text messaging on a weekend.

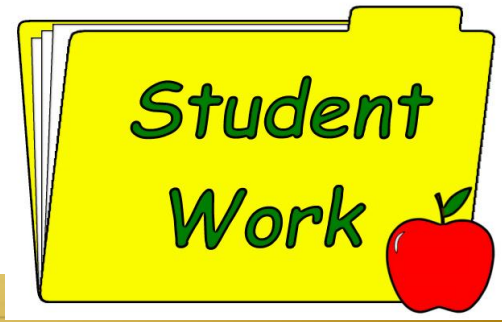
computations.

Minutes Used	Cumulative Frequency
31–40	2
31–50	5
31–60	10
31–70	19
31–80	30

statistics

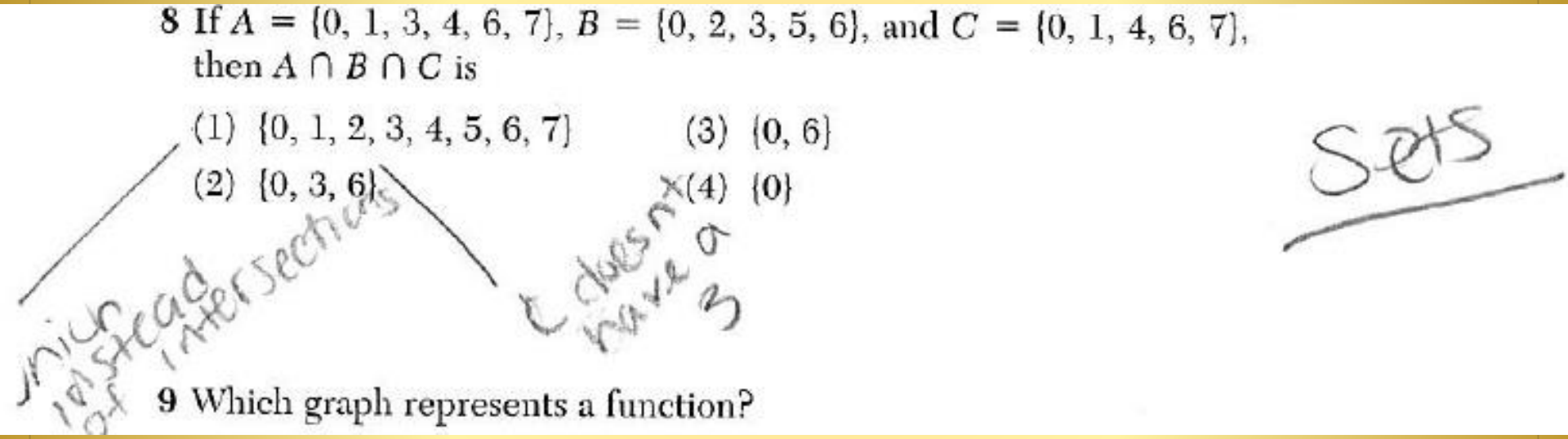
Which 10-minute interval contains the first quartile?

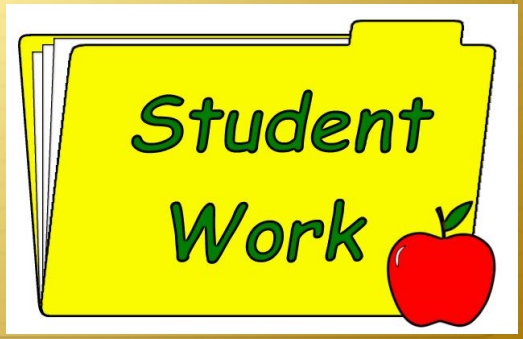
(1) 31–40
(2) 41–50
(3) 51–60
(4) 61–70



Characteristics of Multiple Choice: Identifying the Distractors and Misconceptions

Obvious wrong answers





Key Vocabulary

14 What is the vertex of the parabola represented by the equation $y = -2x^2 + 24x - 100$?

(1) $x = -6$

(2) $x = 6$

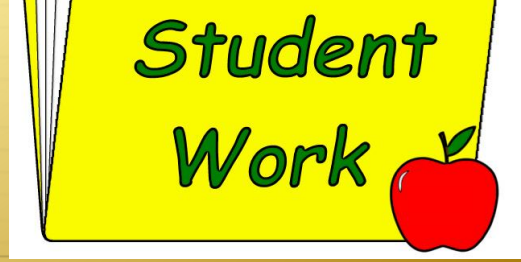
(3) $(6, -28)$

(4) $(-6, -316)$

not a point.

Use th
com

calculator (graph)



Question Structure

When $8x^2 + 3x + 2$ is subtracted from $9x^2 - 3x - 4$, the result is

(1) $x^2 - 2$

(2) $17x^2 - 2$

(3) $-x^2 + 6x + 6$

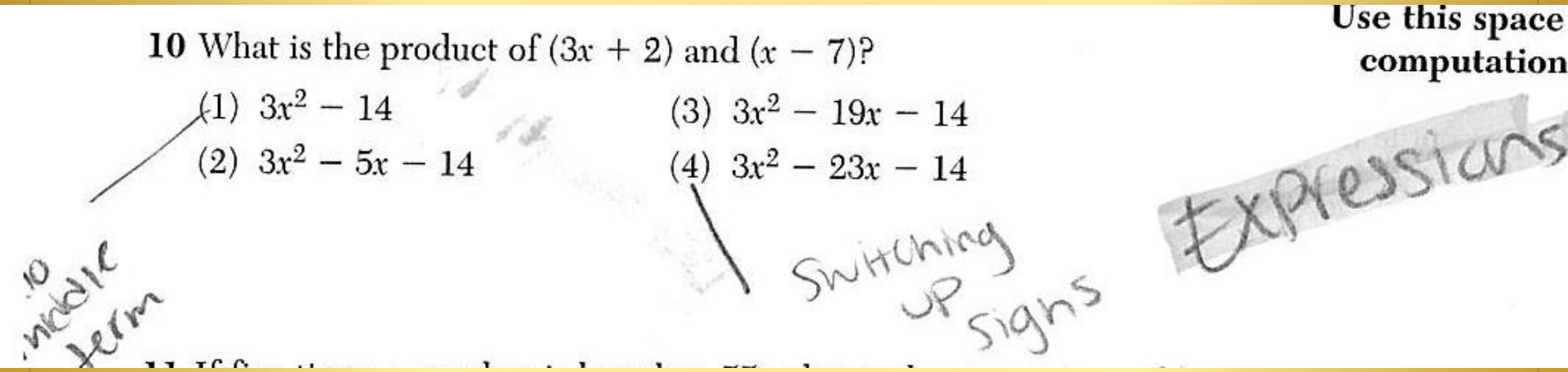
(4) $x^2 - 6x - 6$

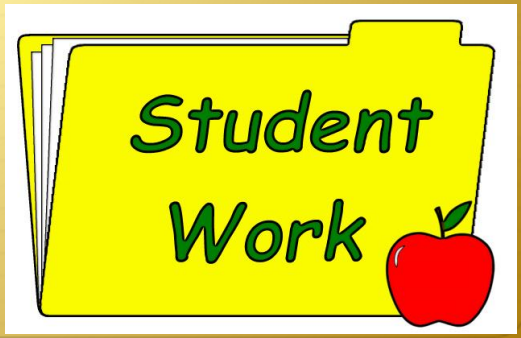
didn't flip expression

Expressions

Student Work

Sign Numbers





What is the question?

Tools for identifying the correct answer

A.N.6: Evaluating Expressions

If $t = -3$, then $3t^2 + 5t + 6$ equals

1) -36
2) -6
3) 6
4) 18

A.A.22: Solving Equations

Which value of x is the solution of the equation $2(x-4)+7=3$?

1) 1
2) 2
3) 6
4) 0

A.A.25 Solving Equations with Fractional Expressions

What is the solution set of the equation

$$\frac{x}{5} + \frac{x}{2} = 14?$$

1) {4}

2) {10}

3) {20}

4) {49}

A.M.2 Conversions

On a certain day in Toronto, Canada, the temperature was 15° Celsius (C). Using the formula $F = \frac{9}{5}C + 32$, Peter converts this temperature to degrees Fahrenheit (F). Which temperature represents 15°C in degrees Fahrenheit?

1) –9
2) 35
3) 59
4) 85

A.A.33: Slope: Determine the Slope of a Line

What is the slope of the line containing the points $(3, 4)$ and $(-6, 10)$?

1) $\frac{1}{2}$

2) 2

3) $-\frac{2}{3}$

4) $-\frac{3}{2}$

A.A.34
Writing Linear Equations

What is an equation of the line that passes through the point $(4, -6)$ and has a slope of -3?

1) $y = -3x + 6$
2) $y = -3x - 6$
3) $y = -3x + 10$
4) $y = -3x + 14$

A.A.39
Identifying Points On a Line

Which linear equation represents a line containing the point $(1, 3)$?

1) $x + 2y = 5$
2) $x - 2y = 5$
3) $2x + y = 5$
4) $2x - y = 5$

What is the question?

Tools for identifying the correct answer

A.A.13: Addition and Subtraction of Polynomials

When $3g^2 - 4g + 2$ is subtracted from $7g^2 + 5g - 1$, the difference is

1) $-4g^2 - 9g + 3$

2) $4g^2 + g + 1$

3) $4g^2 + 9g - 3$

4) $10g^2 + g + 1$

A.A.13: Addition and Subtraction of Polynomials

When $-2x^2 + 4x + 2$ is subtracted from $x^2 + 6x - 4$, the result is

1) $-3x^2 - 2x + 6$

2) $-x^2 + 10x - 2$

3) $2x^2 - 2x - 6$

4) $3x^2 + 2x - 6$

A.A.13: Addition and Subtraction of Polynomials

If $2x^2 - x + 6$ is subtracted from $x^2 + 3x - 2$, the result is

1) $x^2 + 2x - 8$

2) $x^2 - 4x + 8$

3) $-x^2 + 2x - 8$

4) $-x^2 + 4x - 8$

Fluency

In a baseball game, the ball traveled 350.7 feet in 4.2 seconds.

Fluency

In a baseball game, the ball traveled 350.7 feet in 4.2 seconds.

What was the average speed of the ball, in feet per second?

Fluency

What is the  and $(x - 7)$?

(1) $3x^2 - 14$

(2) $3x^2 - 5x - 14$

(3) $3x^2 - 19x - 14$

(4) $3x^2 - 23x - 14$

Fluency

What is the product of $(3x + 2)$ and $(x - 7)$?

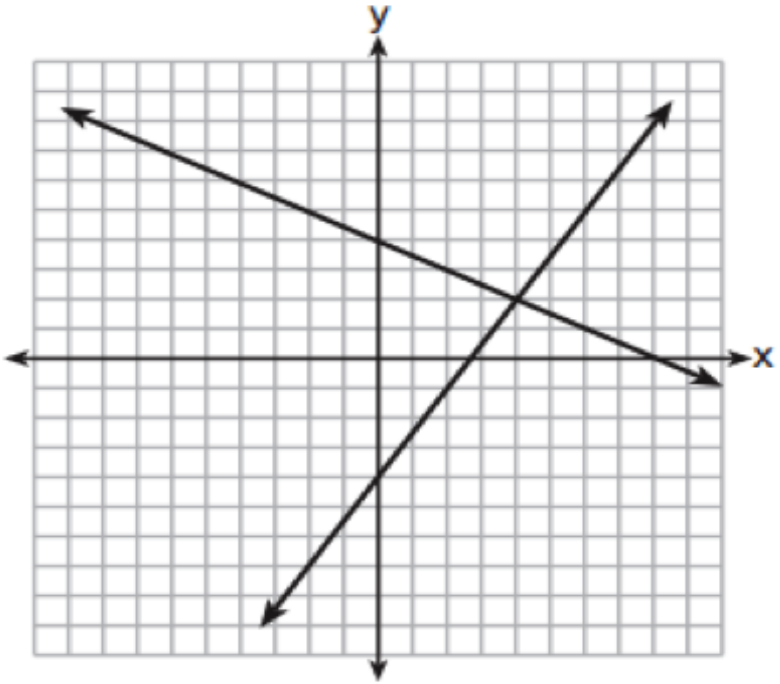
(1) $3x^2 - 14$

(2) $3x^2 - 5x - 14$

(3) $3x^2 - 19x - 14$

(4) $3x^2 - 23x - 14$

Fluency



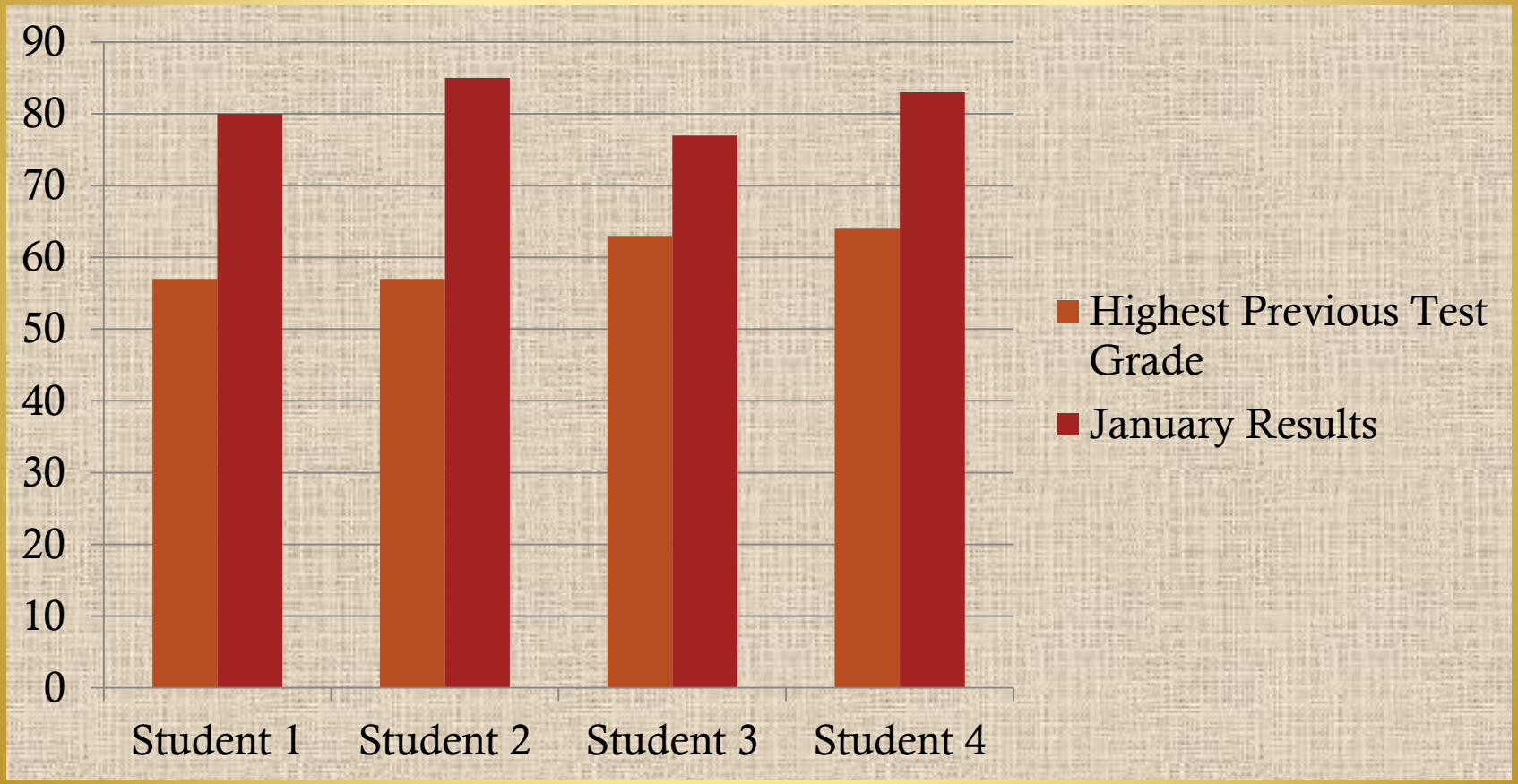
(1) (0,4)

(2) (2,4)

(3) (4,2)

(4) (8,0)

Results


90
80
70
60
50
40
30
20
10
0
Student 1
Student 2
Student 3
Student 4
Highest Previous Test Grade
January Results

Are My Students College Ready?