Today's Plan:

Learning Target (standard): I will review for my final exam.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, and complete practice problems.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over review concepts.
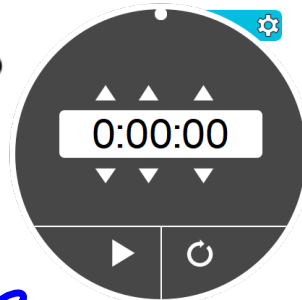
Assessment: Board work and review problems

Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in review problems for the final exam.

NAME _____   #163

BELL RINGER

1.) Evaluate $\sqrt{16}$ **= 4**

2.) Solve the inequality. $|x + 1| > 3$ *distance*

$X+1 < -3$ $X+1 > 3$

$\{x \mid x < -4, x > 2\}$

$X < -4$ $X > 2$

$(-\infty, -4) \cup (2, \infty)$

3.) Solve $3^{4x} = 3^{20}$

$4x = 20$

$X = 5$

0:00:00

Graph. $y = ax^2 + bx + c$

$f(x) = x^2 - 10x + 24$

1) opens up → minimum

2) vertex: $(5, -1)$

$x = -\frac{b}{2a} = \frac{10}{2(1)} = \frac{10}{2} = 5$

$f(5) = (5)^2 - 10(5) + 24$

$= 25 - 50 + 24$
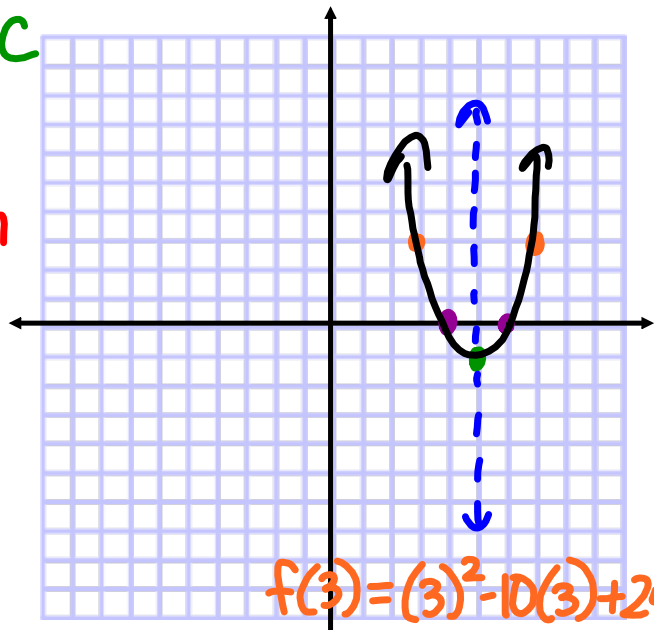
$f(5) = -1$

3) AOS: $x = 5$

4) I_x: $(4, 0), (6, 0)$

$x^2 - 10x + 24 = 0$

$x^2 - 6x - 4x + 24 = 0$

$x(x-6) - 4(x-6) = 0$

$(x-6)(x-4) = 0$

$x = 6, 4$

5)

x	y
*3	3
4	0
5	-1
6	0
*7	3

$f(3) = (3)^2 - 10(3) + 24$

$= 9 - 30 + 24$

$f(3) = 3$

24
$\wedge$
$-6 + 4 = -10$

$\frac{10}{2} = 5^2 = 25$

$x^2 - 10x + 25 = -24 + 25$

$\sqrt{(x-5)^2} = \pm\sqrt{1}$

$x - 5 = 1, -1$

$x = 6, 4$

Graph.

$$f(x) = -x^2 - 6x$$

1) opens down → maximum

2) vertex: $(-3, 9)$

$$X = -\frac{b}{2a} = \frac{6}{2(-1)} = \frac{6}{-2} = -3$$
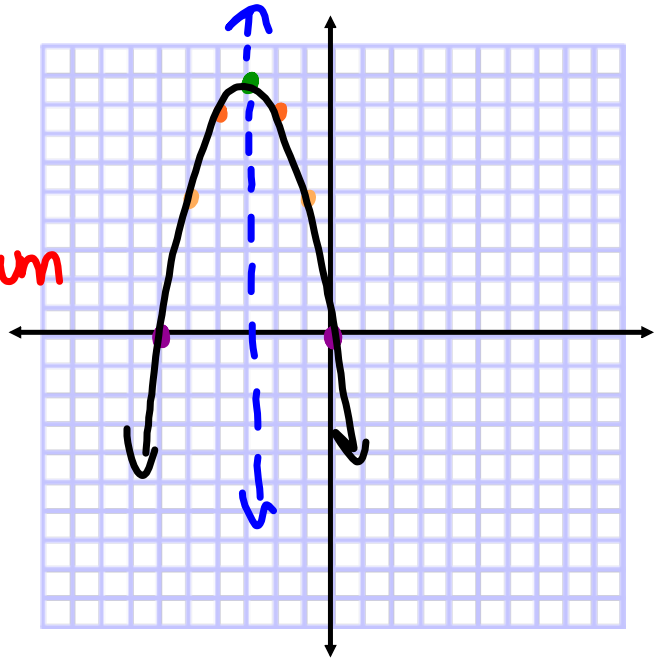
$$f(-3) = -(-3)^2 - 6(-3)$$

$$= -9 + 18$$

$$f(-3) = 9$$

3) AOS: $X = -3$

4) Ix: $(0, 0), (-6, 0)$

$$-X^2 - 6x = 0$$

$$-X(X + 6) = 0$$

$$X = 0, -6$$

5)

X	Y
-5	5
-4	8
-3	9
-2	8
-1	5

$$f(-1) = -(-1)^2 - 6(-1)$$

$$= -1 + 6$$

$$f(-1) = 5$$

$$f(-2) = -(-2)^2 - 6(-2)$$

$$= -4 + 12$$

$$f(-2) = 8$$

Find the 5-number summary. Also, find the mode, mean, and interquartile range for each data se

26)   Nobel Laureates

Name	Age
Frederick Sanger	40
Vidiadhar Surajprasad Naipaul	69
Donald Arthur Glaser	34
David Hunter Hubel	55
James McGill Buchanan Jr.	67
Malala Yousafzai	17

Name	Age
Val Logsdon Fitch	57
Thomas Crombie Schelling	84
Anthony James Leggett	65
Muhammad Yunus	66
John Maxwell Coetzee	63
Roger Bruce Myerson	56

Name	Age
Linda Baka Buck	57
Sydney Brenner	75
Eric Allin Cornell	39
Shimon Peres	71
Joseph Hooton Taylor Jr.	52

17,34,39,40,52,55,56,57,57,63,65,66,67,
69,71,75,84

minimum = 17 years

1st quartile = 46 years

2nd quartile = 57 years

3rd quartile = 68 years

maximum = 84 years

Inter-quartile range = 22 years

mean = 967/17=56.882 years

mode = 57 years

Find the 5-number summary and use the summary to create a box-and-whisker plot.

29) Per Capita Income by Country

Stem	Leaf
0	1 1 5 7 8 8 9
1	0 2 4 4
2	6
3	4 5
4	3
5	4

Key: 1|2 = 12,000

1000,1000,5000,7000,8000,8000,9000,10000, 12000,14000,14000,26000,34000,35000,43000, 54000

- minimum = $1000

- 1st quartile = $7500

- 2nd quartile = $11,000

- 3rd quartile = $30,000

- maximum = $54,000

Inter-quartile range = $22,500

Per Capita Income

10,000   20,000   30,000   40,000   50,000

Amount ($)