

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 _____

$6y - 2 + 5y + 5$

BELL RINGER



#174

1.) Find the sum $(6y - 2) + (5y + 5)$

$11y + 3$

2.) Solve $2(x - 3) = 5x - 1$

$2x - 6 = 5x - 1$
 $-3x - 6 = -1$
 $-3x = 5$

3.) Solve the system of equations.

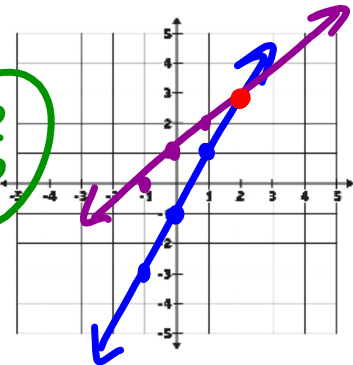
① $y = 2x - 1$ (Use the Graphing Method)

② $y = x + 1$

① $m = 2$
 $I_y: (0, -1)$

② $m = 1$
 $I_y: (0, 1)$

$x = -\frac{5}{3}$



independent
 $(2, 3)$

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

100,100,100,100,300,300,400,400,900,
900,1000,2200,2400,2500,2900,4800

$$\text{minimum} = 100^{\circ}\text{C}$$

$$\text{1st quartile} = 200^{\circ}\text{C}$$

$$\text{2nd quartile} = 650^{\circ}\text{C}$$

$$\text{3rd quartile} = 2300^{\circ}\text{C}$$

$$\text{maximum} = 4800^{\circ}\text{C}$$

$$\text{Inter-quartile range} = 2100^{\circ}\text{C}$$

30) Boiling Point ($^{\circ}\text{C}$)

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

Key: $2|4 = 2,400$

Simplify.

$$31) -4\sqrt{63x^2y^2}$$

$$32) 4\sqrt{75uv^2}$$

$$33) -2\sqrt{294x^2y}$$

$$34) -2\sqrt{384x^4y^2}$$

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

30) Boiling Point (°C)

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

minimum = 100

$Q_1 = 200$

$Q_2 = 650$

$Q_3 = 2300$

maximum = 4800

Key: 2|4 = 2,400

100, 100, 100, 100, 300, 300, 400, 400 | 900, 900, 1100, 2200
 2400, 2500, 2900, 4800 Q_2 Q_3

Simplify.

31) $-4\sqrt{63x^2y^2}$

63
 7 9
 3 3

$$= -4\sqrt{3 \cdot 3 \cdot 7 \cdot x \cdot x \cdot y \cdot y}$$

$$= -4 \cdot 3 \cdot x \cdot y \sqrt{7}$$

$$= -12xy\sqrt{7}$$

32) $4\sqrt{75uv^2}$

75
 3 25
 5 5

$$= 4\sqrt{3 \cdot 5 \cdot 5 \cdot u \cdot v \cdot v}$$

$$= 4 \cdot 5 \cdot v \sqrt{3 \cdot u}$$

$$= 20v\sqrt{3u}$$

33) $-2\sqrt{294x^2y}$

294
 3 98
 2 49
 7 7

$$= -2\sqrt{2 \cdot 3 \cdot 7 \cdot 7 \cdot x \cdot x \cdot y}$$

$$= -2 \cdot 7 \cdot x \sqrt{2 \cdot 3 \cdot y}$$

$$= -14x\sqrt{6y}$$

34) $-2\sqrt{384x^4y^2}$

384
 3 128
 2 64
 2 32
 2 16
 2 8
 2 4
 2 2

$$= -2\sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y}$$

$$= -2 \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot y \sqrt{2 \cdot 3}$$

$$= -16x^2y\sqrt{6}$$

Exam Review

Solve each equation by factoring.

1) $b^2 - 6 = b$

$$b^2 - b - 6 = 0 \quad \begin{matrix} 6 \\ 2 \quad -3 = -1 \end{matrix}$$

$$b^2 + 2b - 3b - 6 = 0$$

$$b(b+2) - 3(b+2) = 0$$

$$(b+2)(b-3) = 0 \quad \boxed{b = -2, 3}$$

3) $2x^2 + 5x - 3 = 0$

$$2x^2 + 6x - x - 3 = 0 \quad \begin{matrix} 6 \\ 6 \quad -1 = 5 \end{matrix}$$

$$2x(x+3) - 1(x+3) = 0$$

$$(x+3)(2x-1) = 0 \quad \boxed{x = -3, \frac{1}{2}}$$

Solve each equation by taking square roots.

5) $4k^2 + 5 = 105$

2) $n^2 = 3n$

$$n^2 - 3n = 0$$

$$n(n-3) = 0$$

$$\boxed{n = 0, 3}$$

4) $2v^2 - v - 6 = 0$

$$2v^2 + 3v - 4v - 6 = 0 \quad \begin{matrix} 12 \\ 3 \quad -4 = -1 \end{matrix}$$

$$v(2v+3) - 2(2v+3) = 0$$

$$(2v+3)(v-2) = 0$$

6) $4n^2 - 3 = 97$

$$\boxed{v = -\frac{3}{2}, 2}$$

Solve each equation by completing the square.

7) $n^2 - 14n + 42 = 5$

8) $x^2 - 4x - 1 = -4$

9) $b^2 + 6b = 7$

10) $3b^2 + 18b - 74 = 7$

Exam Review

Solve each equation by factoring.

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3) $2x^2 + 5x - 3 = 0$

4) $2v^2 - v - 6 = 0$

Solve each equation by taking square roots.

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6) $4n^2 - 3 = 97$

Solve each equation by completing the square.

7) $n^2 - 14n + 42 = 5$

$\frac{14}{2} = 7^2 = 49$

$n^2 - 14n + 49 = -37 + 49$

$\sqrt{(n-7)^2} = \sqrt{12}$

$n-7 = \sqrt{12}, -\sqrt{12}$

9) $b^2 + 6b = 7$ $n = 7 + \sqrt{12}, 7 - \sqrt{12}$

$b^2 + 6b + 9 = 7 + 9$

$\sqrt{(b+3)^2} = \sqrt{16}$

$b+3 = 4, -4$

$b = 1, -7$

8) $x^2 - 4x - 1 = -4$

$\frac{4}{2} = 2^2 = 4$

$x^2 - 4x + 4 = -3 + 4$

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

$x-2 = 1, -1$

$x = 3, 1$

10) $3b^2 + 18b - 74 = 7$

$\frac{3b^2 + 18b}{3} = \frac{81}{3}$ $\frac{18}{3} = 3^2 = 9$

$b^2 + 6b + 9 = 27 + 9$

$\sqrt{(b+3)^2} = \sqrt{36}$

$b+3 = 6, -6$

$b = 3, -9$