

Today's Plan:

Learning Target (standard): I will prepare for the 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 over past concepts.

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

Assessment: Board work, homework check and homework assignment

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

Solve.

$$-2 \cdot 7^{n+8} = -35$$

$$7^{n+8} = \frac{35}{2}$$

$$\ln 7^{n+8} = \ln\left(\frac{35}{2}\right)$$

$$(n+8)\ln 7 = \ln\left(\frac{35}{2}\right)$$

$$n+8 = \frac{\ln\left(\frac{35}{2}\right)}{\ln 7}$$

$$n = \frac{\ln 35 - \ln 2}{7} - 8$$

Solve using the graphing method.

$$\textcircled{1} -2x + 4y = -8 \quad 4y = 2x - 8$$

$$x = 2y + 4$$

$$2y = x - 4$$

$$y = \frac{1}{2}x - 2$$

$$m = \frac{1}{2}$$

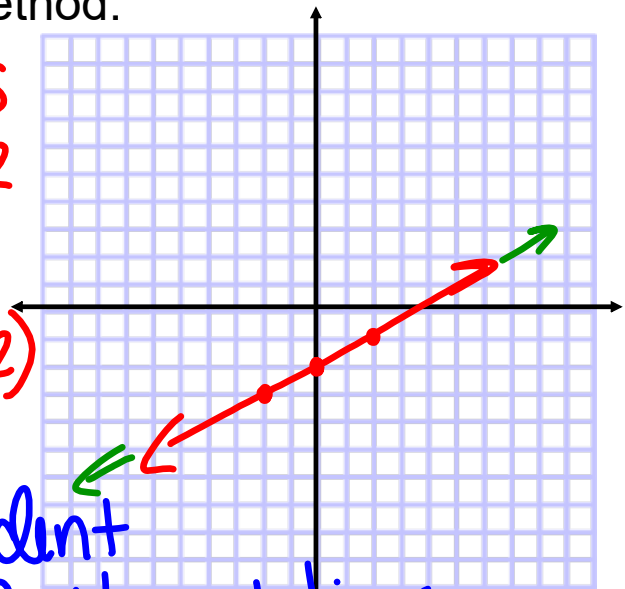
$$Iy: (0, -2)$$

$$y = \frac{1}{2}x - 2$$

$$m = \frac{1}{2}$$

$$Iy: (0, -2)$$

dependent
infinite solutions



Solve using the elimination method.

$$\begin{array}{r} 12(5x + y + 4z = 19) \\ -3(-5x + 4y + z = -19) \\ 4(-4x + 3y + 3z = -20) \end{array} \quad \begin{array}{r} 60x + 12y + 48z = 228 \\ 15x - 12y - 3z = 57 \\ -16x + 12y + 12z = -80 \end{array} \begin{array}{l} > + \\ > + \\ > + \end{array}$$

$$\begin{array}{r} 75x + 45z = 285 \\ 75(-x + 9z = -23) \end{array} \quad \begin{array}{r} 75x + 45z = 285 \\ -75x + 675z = -1725 \end{array}$$

$$-x + 9(-2) = -23$$

$$-x - 18 = -23$$

$$-x = -5$$

$$x = 5$$

independent
(5, 2, -2)

$$720z = -1440$$

$$z = -2$$

$$-20 + 3y - 6 = -20$$

$$3y - 6 = -20$$

$$3y = 6$$

$$y = 2$$

Find the sum of the series.

$$\begin{aligned} \sum_{k=3}^7 (2k+3)^2 &= [2(3)+3]^2 + [2(4)+3]^2 + [2(5)+3]^2 \\ &\quad + [2(6)+3]^2 + [2(7)+3]^2 \\ &= (9)^2 + (11)^2 + (13)^2 + (15)^2 + (17)^2 \\ &= 81 + 121 + 169 + 225 + 289 \\ &= 885 \end{aligned}$$

Sketch the graph of each function.

29) $y = x^2 + 8x + 19$

x	y
* -6	7
* -5	4
-4	3
* -3	4
* -2	7

D: \mathbb{R}

R: $\{y \mid y \geq 3\}$

vertex: $(-4, 3)$

$$x = -\frac{b}{2a} = \frac{-8}{2} = -4$$

$$y = 16 - 32 + 19$$

$$y = 3$$

