Today's Plan:

Learning Target (standard): I will graph lines using the slope-intercept method. I will write the equations for lines.

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, take notes over new material and complete practice problems over new concepts.

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 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 lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

Sep 28-9:22 AM

State the independent and dependent variable. Find the rate of change.

Time (min)	Elevation (ft)
0	30,000
2	29,000
5	27,500
12	24,000

① independent - time (min)
dependent - elevation (ft)

② RoC = $\frac{\Delta \text{dependent}}{\Delta \text{independent}}$

③ RoC = $\frac{\Delta \text{elevation (ft)}}{\Delta \text{time (min)}}$

④ RoC = $\frac{24000 - 30000 \text{ ft}}{12 - 0 \text{ min}}$

⑤ RoC = $\frac{-6000}{12} = \frac{-500 \text{ ft}}{1 \text{ min}}$

⑥ Every minute the plane descends 500 feet.

Jul 27-3:31 PM

Find the equation for the line.

passes through: (6,4)

$m = \frac{2}{3}$

① $y = mx + b$

$4 = \frac{2}{3}(6) + b$

$4 = 4 + b$

$b = 0$

$y = \frac{2}{3}x$

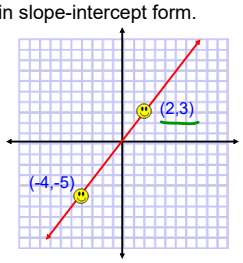
② $\times 3$ $\left(y = \frac{2}{3}x\right)$

$3y = 2x$

$-2x + 3y = 0$

Jul 27-4:42 PM

Write the equation of the line in slope-intercept form.



$m = \frac{y_2 - y_1}{x_2 - x_1}$

$= \frac{3+5}{2+4}$

$= \frac{8}{6}$

$m = \frac{4}{3}$

① $y = mx + b$

$3 = \frac{4}{3}(2) + b$

$3 = \frac{8}{3} + b$

$3 - \frac{8}{3} = b$

$\frac{9}{3} - \frac{8}{3} = b$

$b = \frac{1}{3}$

$y = \frac{4}{3}x + \frac{1}{3}$

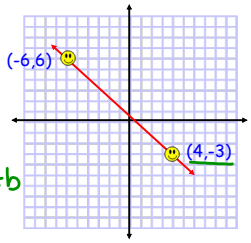
② $\times 3$ $\left(y = \frac{4}{3}x + \frac{1}{3}\right)$

$3y = 4x + 1$

$-4x + 3y = 1$

Jul 27-5:14 PM

Write the equation of the line in slope-intercept form.



$m = \frac{y_2 - y_1}{x_2 - x_1}$

$= \frac{-3-6}{4+6}$

$m = -\frac{9}{10}$

① $y = mx + b$

$-3 = -\frac{9}{10}(4) + b$

$-3 = -\frac{18}{5} + b$

$-3 + \frac{18}{5} = b$

$-\frac{15}{5} + \frac{18}{5} = b$

$b = \frac{3}{5}$

$y = -\frac{9}{10}x + \frac{3}{5}$

② $\times 10$ $\left(y = -\frac{9}{10}x + \frac{3}{5}\right)$

$10y = -9x + 6$

$9x + 10y = 6$

Jul 27-5:14 PM