

## Lesson 6-2: Slope-Intercept Form

### Part 1: Writing Linear Equations

1. 010408a, P.I. 8.G.16

An equation of the line that has a slope of 3 and a y-intercept of -2 is

- [A]  $y = -x$                       [B]  $y = 3x - 2$   
[C]  $x = 3y - 2$                 [D]  $y = -2x + 3$

2. 010203a, P.I. A.A.37

What is the slope of the line whose equation is  $2y = 5x + 4$ ?

- [A]  $\frac{2}{5}$             [B]  $\frac{5}{2}$             [C] 5            [D] 2

3. 010605a

What is the y-intercept of the graph of the line whose equation is  $y = -\frac{2}{5}x + 4$ ?

- [A]  $-\frac{2}{5}$             [B] 0            [C] 4            [D]  $-\frac{5}{2}$

4. 060521a, P.I. A.A.34

If point  $(-1,0)$  is on the line whose equation is  $y = 2x + b$ , what is the value of  $b$ ?

- [A] 3            [B] 0            [C] 2            [D] 1

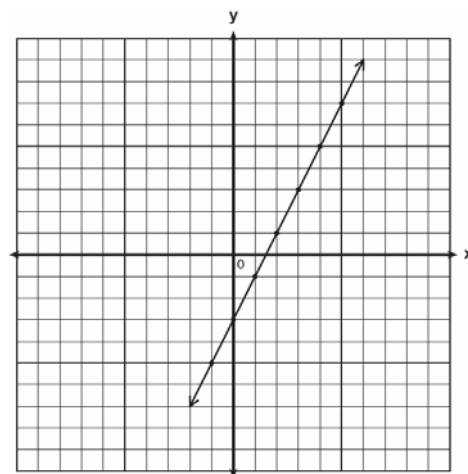
5. fall0713ia, P.I. A.A.35

What is an equation for the line that passes through the coordinates  $(2,0)$  and  $(0,3)$ ?

- [A]  $y = -\frac{3}{2}x + 3$             [B]  $y = -\frac{2}{3}x - 2$   
[C]  $y = -\frac{2}{3}x + 2$             [D]  $y = -\frac{3}{2}x - 3$

6. 060225a

Write the equation for the line shown in the accompanying graph. Explain your answer.



7. 089929a

Line  $\ell$  contains the points  $(0,4)$  and  $(2,0)$ . Show that the point  $(-25,81)$  does or does not lie on line  $\ell$ .

[1] B[2] B[3] C[4] C[5] A

[2]  $y = 2x - 3$  or an equivalent equation, and appropriate work is shown, or an appropriate explanation is given, such as the slope is 2 and the y-intercept is -3.

[1]  $y = 2x - 3$ , but the slope and intercept are incorrect, or the explanation is not given or is incorrect, such as  $m = 2$  and  $b = -3$ .

or [1] The slope and intercept are explained correctly, but the equation is incorrect.

or [1]  $y = 2x - 3$ , but no work is shown and no explanation is given.

[0] The equation is incorrect, and the explanation of slope and intercept is not given or is incorrect.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[6] obviously incorrect procedure.

[3] The student says the point does not lie on the line and an appropriate method is shown, such as slope of -2 does not work with the new point  $(-25, 81)$  and either other point  $(0, 4)$  or  $(2, 0)$ , or accurately shows a graph where  $(-25, 81)$  is not on line  $\ell$ .

[2] The student says the point does not lie on the line but gives an inappropriate explanation of slope.

or [2] The student tries to use slope concept but makes one computational mistake and gives an appropriate answer based on this mistake.

[1] Only the slope of -2 is found.

or [1] The correct diagram is drawn with no interpretation.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[7] incorrect procedure.