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Module 8 Writing Linear Equations of Two Variables
Lesson 4 Solving Linear Equations in Two Variables When Parameters Are Changed



**additional
practice**

Given each equation, determine the resulting equation when the parameters are changed as indicated. Write the new equation in slope-intercept form.

1. $y = -2x + 4$

increase slope by 3

$y = x + 4$

2. $y = \frac{3}{4}x + 6$

decrease slope by 1

$y = -\frac{1}{4}x + 6$

3. $y = 3x - 2$

increase y-intercept by 4

$y = 3x + 2$

4. $y = \frac{7}{6}x + \frac{1}{6}$

multiply slope by $-\frac{12}{7}$

$y = -2x + \frac{1}{6}$

5. $y = -\frac{4}{5}x - 1$

decrease y-intercept by 3

$y = -\frac{4}{5}x - 4$

6. $y = \frac{2}{3}x + 6$

increase slope by -6

$y = -\frac{16}{3}x + 6$

7. $y = \frac{5}{2}x + 4$

decrease y-intercept by $\frac{1}{2}$

$y = \frac{5}{2}x + 3\frac{1}{2}$

8. $y = \frac{9}{10}x$

increase slope by $\frac{2}{5}$

$y = \frac{13}{10}x$

9. $y = -\frac{3}{2}x - 2$

decrease slope by $\frac{1}{2}$

$y = -2x - 2$

10. $y = \frac{3}{5}x + 7$

increase slope by $\frac{2}{5}$

$y = x + 7$

11. $y = \frac{1}{7}x - 6$

decrease y-intercept by 4

$y = \frac{1}{7}x - 10$

12. $y = x + 1$

decrease y-intercept by 3

$y = x - 2$

In slope-intercept form, write the equation of the line described:

13. The line with the same y-intercept and the opposite slope as the line
- $4x + 2y = 3$
- .

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

14. The line with the same slope and the opposite y-intercept as the line
- $9y + 6x = 1$
- .

$y = -\frac{2}{3}x - \frac{1}{9}$

15. The line with the same y-intercept and the opposite slope as the line
- $\frac{1}{3}y + 4x = 8$
- .

$y = 12x + 24$

16. The line with the same slope and the opposite y-intercept as the line
- $-x - 6y = \frac{5}{2}$
- .

$y = -\frac{1}{6}x + \frac{5}{12}$

