1) $y = \frac{1}{2}x + 1$

2) $y = -3x - 2$

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

4) $y = 4$

5) $y = -\frac{4}{3}x + \frac{4}{3}$

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

7) $x = -2$

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

9) $y = -\frac{7}{5}x - \frac{1}{5}$

10) $y = x$

11) $y = -\frac{1}{3}x$
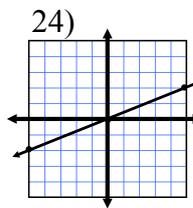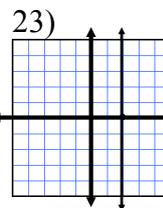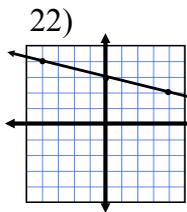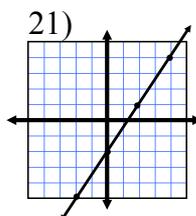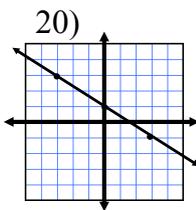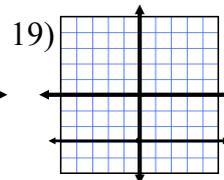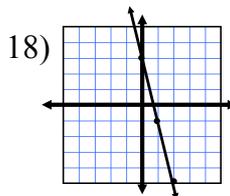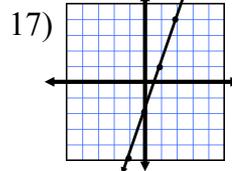
12) $y = \frac{1}{4}x - \frac{11}{4}$

13) $y = -6x + 15$

14) $y = -x - 2$

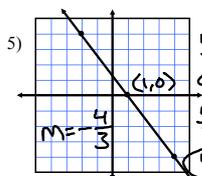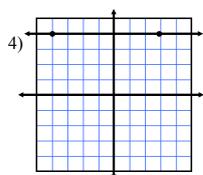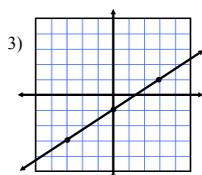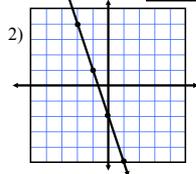15) $x = 1$

16) $y = \frac{3}{11}x - \frac{5}{11}$

Algebra I
8-5
Supplement

17)

18)

19)

20)

21)

22)

23)

24)

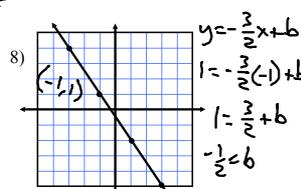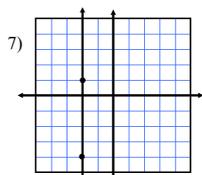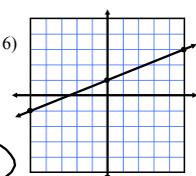## Algebra I
Writing Equations from Graphs

Write the equation of each line in slope/intercept form.

Name: _____
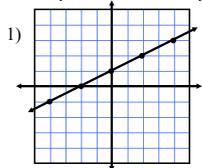
1)

2)

3)

4)

5) $y = -\frac{4}{3}x + b$

$(1,0)$

$0 = -\frac{4}{3}(1) + b$

$M = -\frac{4}{3}$

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

$\boxed{y = -\frac{4}{3}x + \frac{4}{3}}$

6)

7)

8) $(-1,1)$

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

$1 = -\frac{3}{2}(-1) + b$

$1 = \frac{3}{2} + b$

$-\frac{1}{2} = b$

9)

$y = -\frac{2}{5}x + b$

$-3 = -\frac{2}{5}(2) + b$ **10)**

$(-3 = \frac{-14}{5} + b)\,5$

$-15 = -14 + 5b$

$(2,-3)$ $\quad -1 = 5b$

$-\frac{1}{5} = b$

$y = -\frac{2}{5}x - \frac{1}{5}$

11) $\qquad y = -\frac{1}{3}x + 0$ **12)** $\qquad y = \frac{1}{4}x + b$

13) $\qquad\qquad$ **14)**

15) $\qquad m = \frac{2-(-1)}{9-(-2)} = \frac{3}{11}$ **16)**

$y = \frac{3}{11}x + b$

$2 = \frac{3}{11}(9) + b$

$(-2,-1)$ $\qquad$ (9, 2)

$\frac{22}{11} = \frac{27}{11} + b$ $\qquad$ *point off graph*

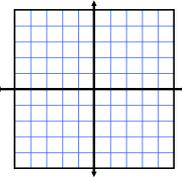$-\frac{5}{11} = b$

Graph each equation.

17)
$y = 3x - 2$
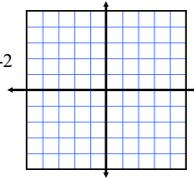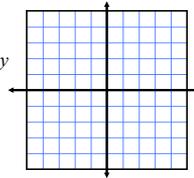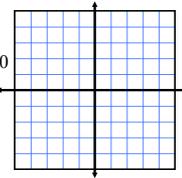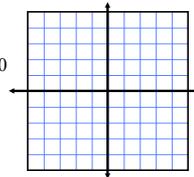
18)
$y = -4x + 3$
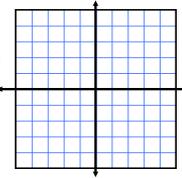
19)
$y = -3$
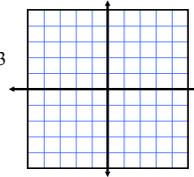
20)
$y = -\frac{2}{3}x + 1$

21)
$4 = 3x - 2y$

22)
$x + 4y - 12 = 0$

23)
$x - 2 = 0$

24)
$2x - 5y = 0$