HOMEWORK SET 2

Sections 1.4

p41: 2 – 5, 18, 28, 42, 46, 49, 55

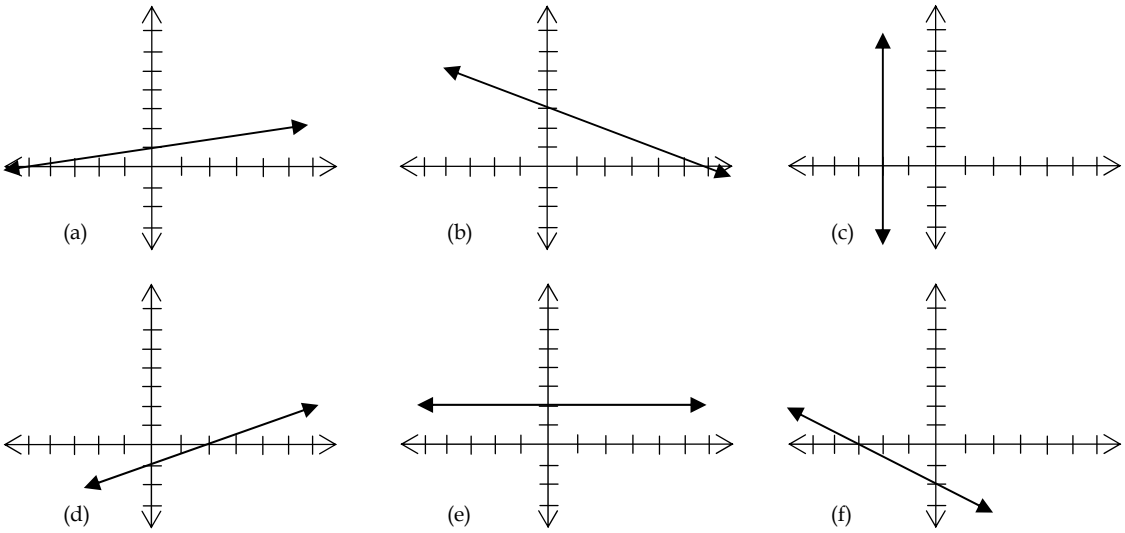
For questions 2 – 5, match the statement with one of the graphs (a)-(f).

2. The slope of the line is undefined.

3. The slope of the line is positive, and its y-intercept is positive.

4. The slope of the line is positive, and its y-intercept is negative.

5. The slope of the line is negative, and its x-intercept is negative.



18. Given the equation $2x + 3y = 4$, answer the following questions:
    a. Is the slope of the line described by this equation positive or negative?

    b. As x increases in value, does y increase or decrease?

    c. If x decreases by 2 units, what is the corresponding change in y?

28. Find the equation of the line that passes through the point (2,4) and has the slope $m = -1$.

42. Write the equation $3x - 4y + 8 = 0$ in slope-intercept form and then find the slope and the y-intercept.

46. Find an equation of the line that passes through the point (2,4) and is perpendicular to the line $3x + 4y - 22 = 0$.

49. Find the equation of the line passing through the point (a, b) with a slope equal to zero.

55. Sketch the straight line defined by $3x - 2y + 6 = 0$ by finding the x- and y-intercepts.