Each section of the homework corresponds to a section on the notes walkthrough! Use the examples from the notes walkthrough to help you!

SECTION 1 : Find the slope of the line through each pair of points

1) $(-15,-6),\ (-14,18)$

2) $(19,-17),\ (-6,-9)$

SECTION 2 : Identify the slope of the line and the y-intercept from the following equations.

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

4) $y = -\dfrac{6}{5}x - 4$

5) $y = 2x - 1$

6) $y = -5$

SECTION 3 : Write the equation of a line given the slope and y-intercept using slope-intercept form.

7) $m = -2,\ b = 3$

8) $m = \dfrac{1}{4},\ b = -\dfrac{2}{3}$

SECTION 4 : Write the slope-intercept form of the equation of the line through the given point with the given slope.

9) Through : $(-1, 4)$, slope = -6

10) Through : $(5, 2)$, slope = $-\dfrac{1}{5}$

SECTION 5 : Write the equation of the line through the given point with the given slope using the point-slope formula.

11) $P(3,9); m=4$

12) $P\left(\dfrac{1}{2},\dfrac{1}{3}\right); m=\dfrac{2}{5}$
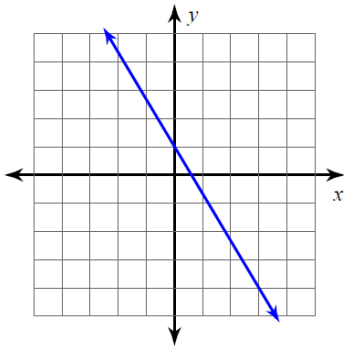
13) $P\left(2,\dfrac{1}{3}\right); m=-6$

SECTION 6 : Write the slope-form of the equation of the line through the given points using the point-slope formula.
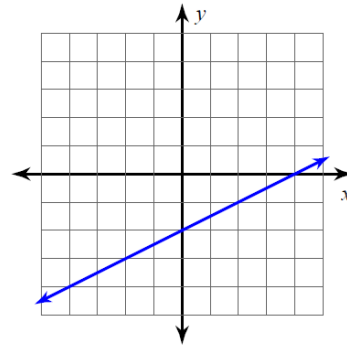
14) Through : $(-5,-2)\ and\ (-3,-4)$

15) Through : $(3,-20)\ and\ (5,8)$

SECTION 7 : Write the slope-intercept form of the equation of each line.
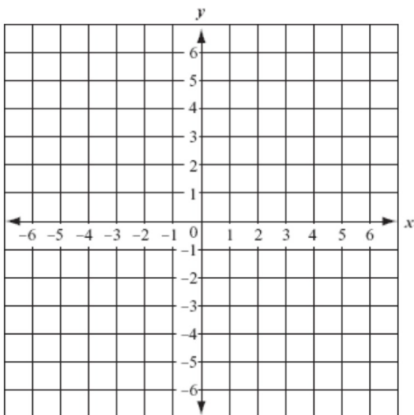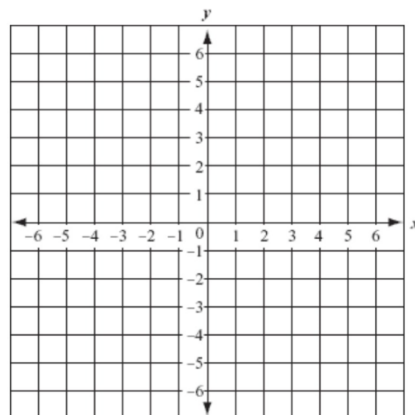
16)

17)

Please graph the following two equations on the coordinate plane.
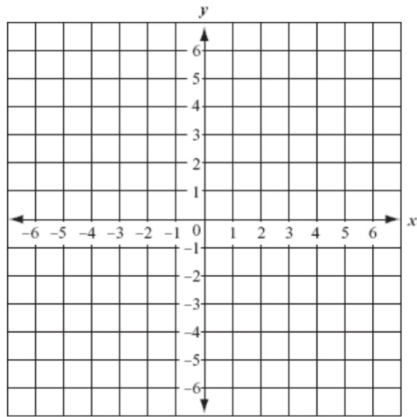
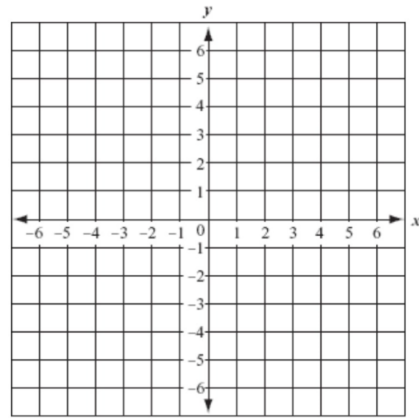18) $y = -\dfrac{4}{3}x + 4$

19) $y = 1$

Sketch the graph of each line using the provided intercepts.

20) x-intercept $= 3$, y-intercept $= -5$

21) x-intercept $= -5$, y-intercept $= 2$

Answer Key :

1) 24

2) $-\dfrac{8}{25}$

3) $m=\dfrac{4}{5},\ b=-5$

4) $m=-\dfrac{6}{5},\ b=-4$

5) $m=2,\ b=-1$

6) $m=0,\ b=-5$

7) $y=-2x+3$

8) $y=\dfrac{1}{4}x-\dfrac{2}{3}$

9) $y=-6x-2$

10) $y=-\dfrac{1}{5}x+3$

11) $y=4x-3$

12) $y=\dfrac{2}{5}x+\dfrac{2}{15}$

13) $y=-6x+\dfrac{37}{3}$

14) $y=-x-7$
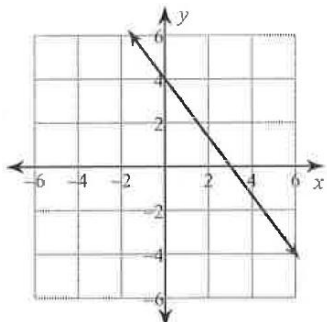
15) $y=14x-62$

16) $y=-\dfrac{5}{3}x+1$
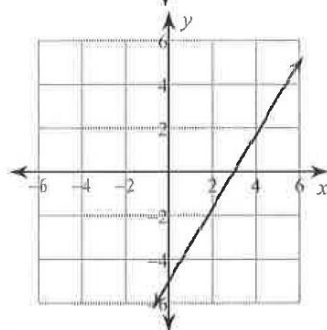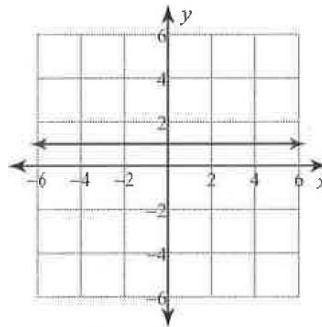
17) $y=\dfrac{1}{2}x-2$

18)

19)

20)

21)