Worksheet Level 2: Writing Linear Equations

Goals:

I have mastered level 2 when I can:

Write an equation given the slope and y-intercept

Write an equation from a table

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

1) Slope $= \dfrac{9}{4}$, y-intercept $= -4$

2) Slope $= -\dfrac{7}{4}$, y-intercept $= 5$

3) Slope $= 2$, y-intercept $= 4$

4) Slope $= -\dfrac{1}{2}$, y-intercept $= -2$

Write an equation in slope-intercept form for each table below. Show how you found the slope and y-intercept.

i.

x	y
0	0
1	2.5
2	5
3	7.5
4	10

ii.

x	y
0	6
1	7
2	8
3	9
4	10

iii.

x	y
0	‾1.5
1	1.5
2	4.5
3	7.5
4	10.5

iv.

x	y
0	3
1	‾1
2	‾5
3	‾9
4	‾13

v.

x	y
1	1
2	5
3	9
4	13
5	17

Write a linear equation for each table relating x and y.

a.

x	0	3	6	10
y	2	8	14	22

b.

x	0	3	6	10
y	20	8	−4	−20

c.

x	2	4	6	8
y	5	8	11	14

d.

x	0	3	6	9
y	20	11	2	−7

Determine if the table represents a linear relationship, if yes, write an equation in slope-intercept form.

a.

x	2	4	6	8	10	12	14
y	0	1	2	3	4	5	6

b.

x	1	2	3	4	5	6	7
y	0	3	8	15	24	35	48

c.

x	1	4	6	7	10	12	16
y	2	−1	−3	−4	−7	−9	−13