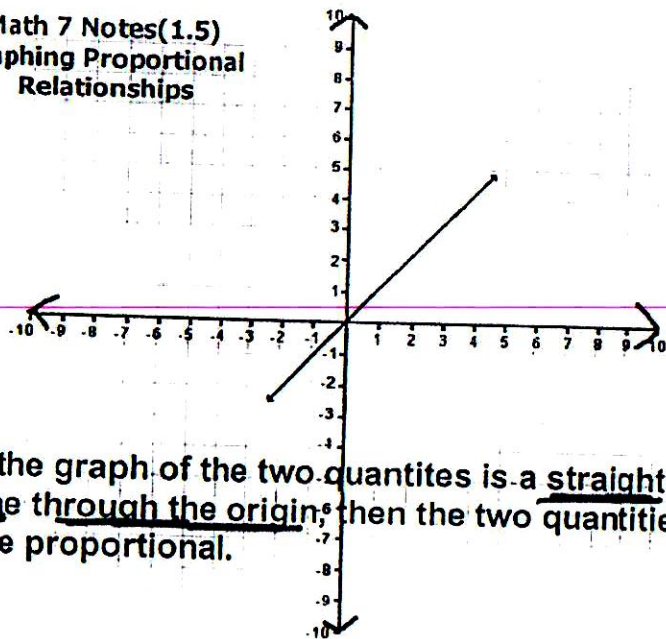


Math 7 Notes(1.5)
Graphing Proportional Relationships



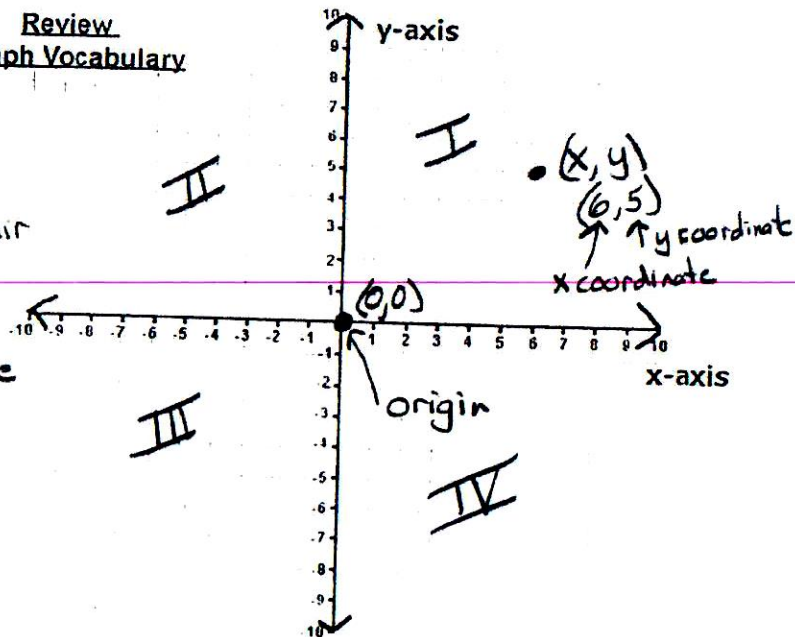
* If the graph of the two quantities is a straight line through the origin, then the two quantities are proportional.

Review
Graph Vocabulary

Origin
x axis
y axis
Ordered pair
(x,y)

x-coordinate
y-coordinate
quadrants

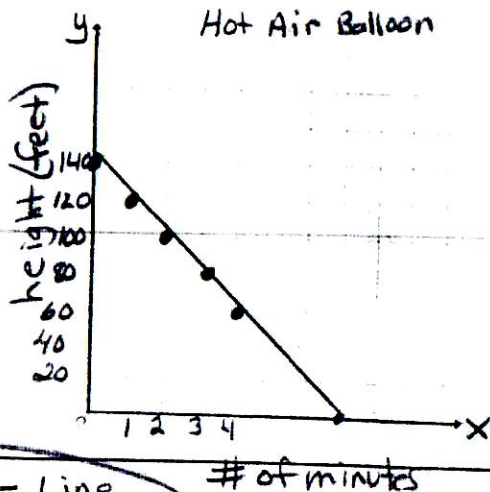
I
II
III
IV



A hot air balloon is at 140 feet and descends 20 feet per minute. Determine whether the height of the hot air balloon is proportional to the number of minutes. Explain your reasoning.

$\frac{y}{x}$ height
min

x min	y height
0	140
1	120
2	100
3	80
4	60

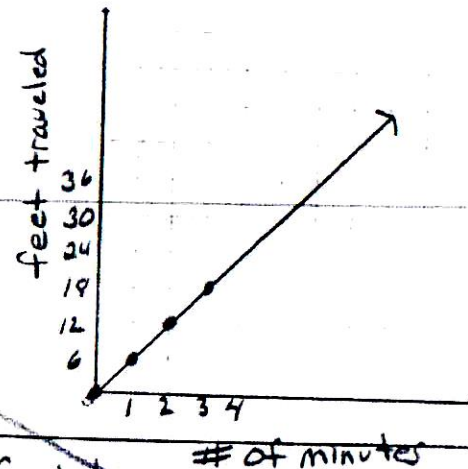


Not Proportional - Line does not pass through origin

The tree sloth moves at a speed of 6 feet per minute. Determine whether the number of feet the sloth moves is proportional to the number of minutes it moves by graphing on the coordinate plane. Explain your reasoning.

$\frac{y}{x}$ feet
min

x	y
0	0
1	6
2	12
3	18

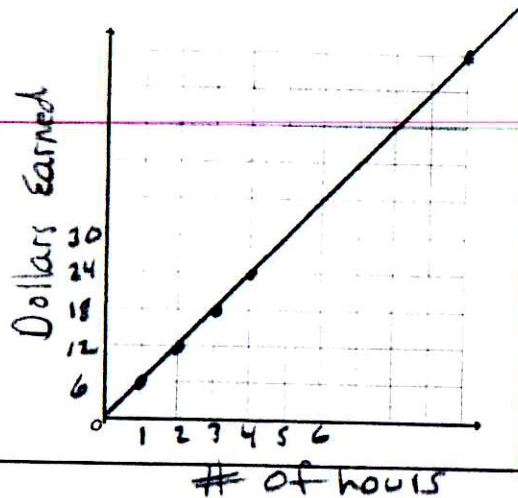


of feet IS proportional to # of minutes because graph is a straight line that goes thru origin

James earns \$6 an hour babysitting. Determine whether the amount of money James earns babysitting is proportional to the number of hours he babysits by graphing on the coordinate plane. Explain your reasoning.

$$\frac{\text{money}}{\text{hours}} = \frac{y}{x}$$

hours X	money Y
0	0
1	6
2	12
3	18
4	24
5	30
6	36



The amount of money earned IS proportional to the # of hours because the graph is a straight line that goes through the origin.