Real-World Algebra Assignment

1. Sierra Custom Plumbing charges $45 for a service call, plus an hourly rate of $40.

a. What would Sierra Custom Plumbing charge for a job that takes three hours? $45 + 3(40) = 45 + 120 = \boxed{\$165}$	b. What would Sierra Custom Plumbing charge for a job that takes two-and-a-half hours? $45 + 2.5(40)$ $45 + 100 = \boxed{\$145}$
c. What would be the cost if you called the plumber to your house and you were not home? (Hint: Nothing in life is free.) $45 + 0(40) = \boxed{\$45}$	d. Write an algebraic expression for the cost of a plumbing service that takes h hours? $\boxed{45 + 40h}$

2. To send a package to Arcata, CA via Joe's Delivery Service it would cost you $2.50 plus $0.75 for each pound.

a. How much would it cost to send a two pound package? $2.50 + 0.75(2)$ $2.50 + 1.50 = \boxed{\$4.00}$	b. How much would it cost to send a six pound package? $2.50 + 0.75(6)$ $2.50 + 4.50 = \boxed{\$7.00}$
c. What would it cost to send a large 5-topping pizza? I have no idea ☺ How much does a large 5-topping pizza weigh?	d. Write an algebraic expression for the cost of sending a p pound package? $\boxed{2.5 + .75p}$

3. High Mountain Taxi in Aspen, CO charges $3.50 at the flag drop (this is the base charge) plus $1 per mile.

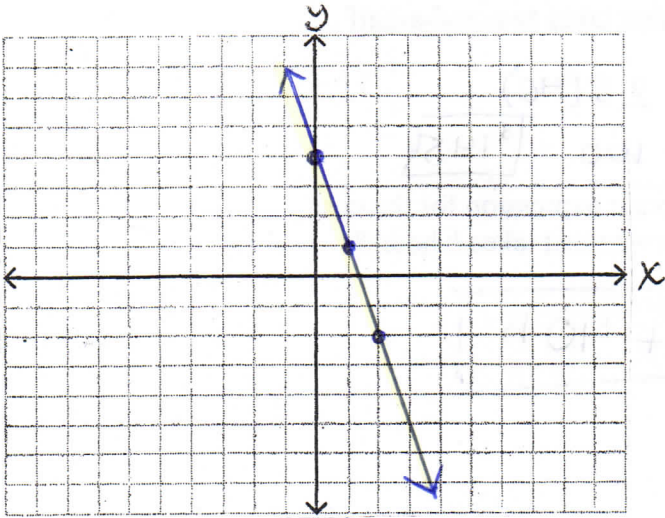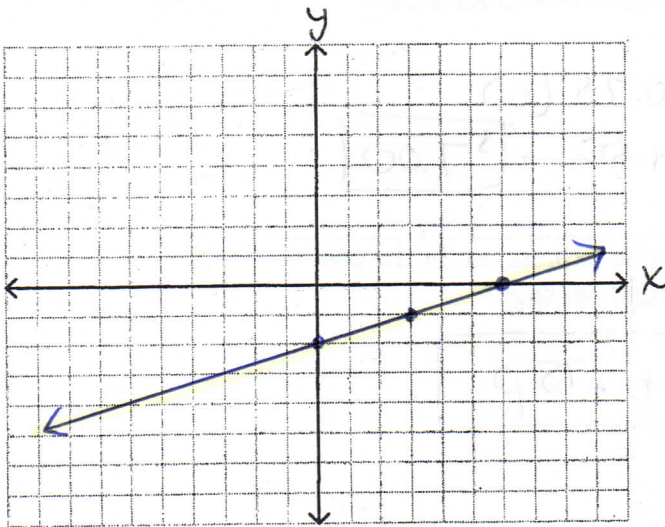|	
a. What would be the fare for a 15 mile cab ride? $3.50 + 1(15)$ $3.50 + 15 = \boxed{\$18.50}$	b. What would be the fare from the airport into town? (the distance from the airport to town is seven miles) $3.50 + 1(7)$ $3.50 + 7 = \boxed{\$10.50}$
c. What would be the round trip fare to the airport? (14 miles) $3.50 + 1(14)$ $3.50 + 14 = \boxed{17.50}$	d. Write an algebraic expression for the fare of an m mile cab ride? $\boxed{3.50 + m}$

Graphing Functions using a T-chart

Graph the *functions* using a t-chart (you need at least three points).
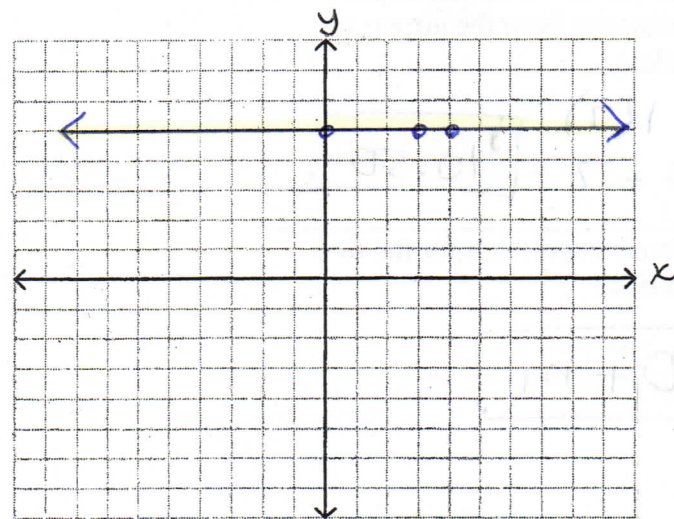
1. $y = -3x + 4$

x	y
0	4
1	1
2	-2

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

x	y
0	-2
3	-1
6	0

3. $y = 5$

x	y
0	5
3	5
4	5