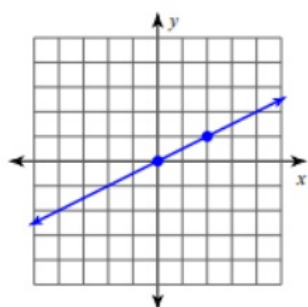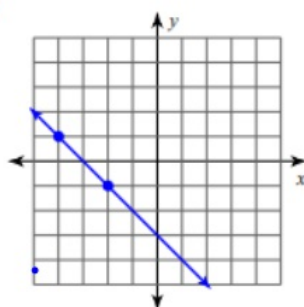**Find the slope of each line.**

1)

$$\frac{1}{2}$$
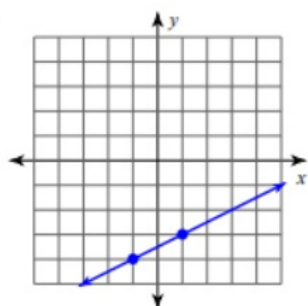
2)

$$\frac{-2}{2}$$

remember:
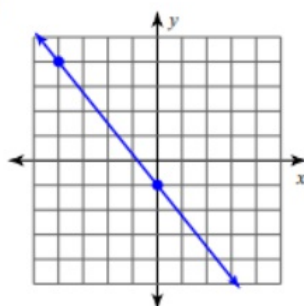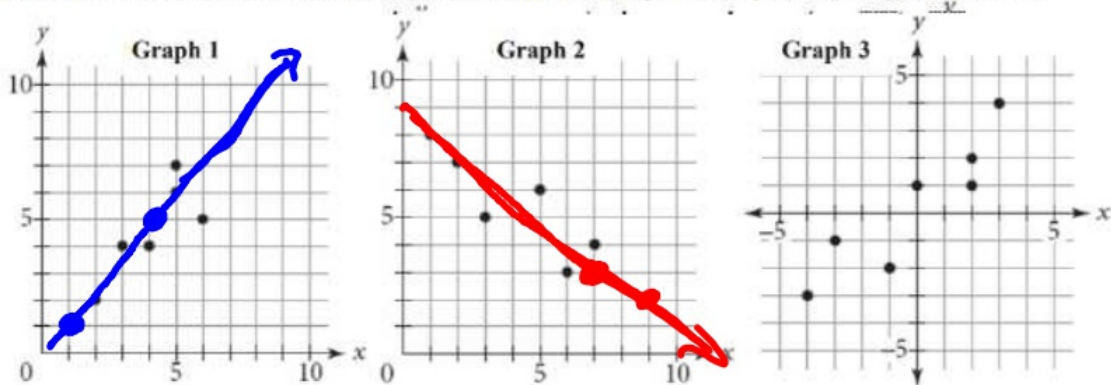rise/run

3)

$$\frac{1}{2}$$

4)

$$\frac{-5}{4}$$

Line of Best Fit Notes

Draw the line of best and write the equation of the line (slope-intercept form) – Eyeball Method

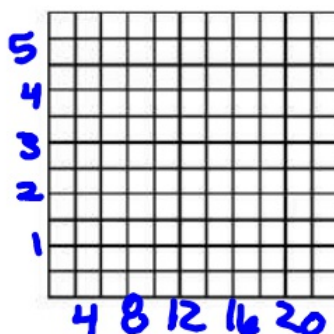| Graph 1	Graph 2	Graph 3

a.) Draw the line of best fit, showing the general trend of the line
b.) Choose two points on the line of best fit, the points may not necessarily be a data point
c.) Find the slope using those two points
d.) Use the slope and one of the points to substitute into $y = mx + b$
e.) Solve for b.
f.) Write the equation of the line in slope-intercept form by substituting m and b into $y = mx + b$

Graph 1	Graph 2	Graph 3
b)	b)	b)
c) 4/3	c) -1/2	c)
d)	d)	d)
e) 0	e) 9	e)
f) $y = 4/3x + 0$	f) $y = -1/2x + 9$	f)

1. A student who waits on tables at a restaurant recorded the cost of meals and the tip left by single diners.

With calculators

Meal Cost	$4.75	$6.84	$12.52	$20.42	$8.97
Tip	$0.50	$0.90	$1.50	$3.00	$1.00

Line of Best Fit Equation: $y = .16x + -.3$
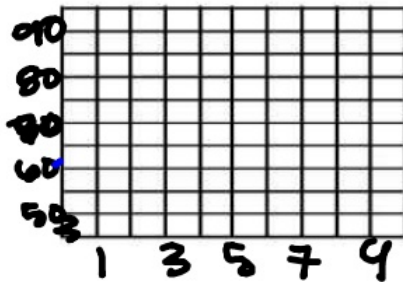
If the diner orders a meal costing $10.50, how much tip should the waiter expect to receive? (Show all work!)

Expected Tip: _____

Line of Best Fit Notes

2. The table below gives the number of hours spent studying for a science exam (x) and the final exam grade (y).

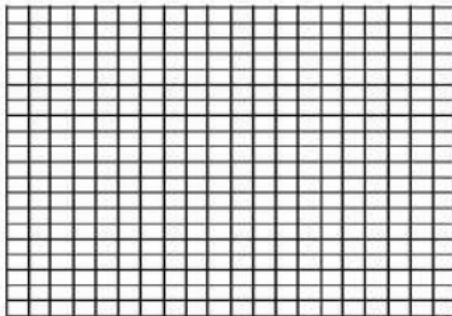| x	2	5	1	0	4	2	3
y	77	92	70	63	90	75	84

Line of Best Fit Equation: $y = 6.09x + 63.93$

Predict the exam grade of a student who studied for 6 hours. (Show all work!)

Expected Grade: _____

3. The table below shows the lengths and corresponding ideal weights of sand sharks.

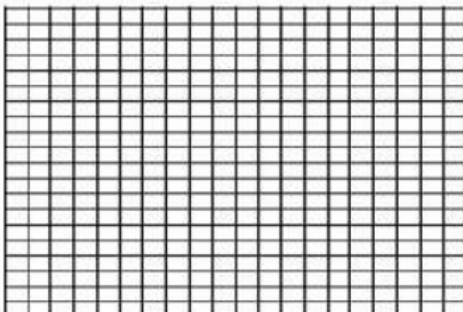| Length	60	62	64	66	68	70	72
Weight	105	114	124	131	139	149	158

Line of Best Fit Equation: _____

Predict the weight of a sand shark whose length is 75 inches. (Show all work!)

Expected Weight: _____

4. The table below gives the height and shoe sizes of six randomly selected men.

Height	67	70	73.5	75	78	66
Shoe size	8.5	9.5	11	12	13	8

Line of Best Fit Equation: _____

If a man has a shoe size of 10.5, what would be his predicted height? (Show all work!)

Expected Height: _____