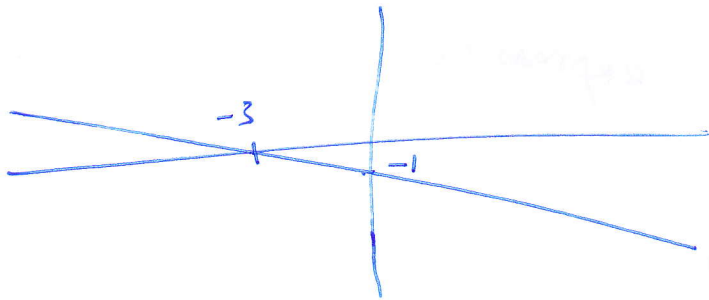


Q1 (a) Write the equation of a line that has a slope of $\frac{1}{2}$ and y intercept of $\frac{1}{2}$

(b) If the slope of a line is -0.25 and $(0, 1)$ is a point on the line, what is the value of y , for $x = 10$ on the same line?

(c) Find the slope of the following line



(d) Find the slope of the line defined by these two points $(0, 5)$ $(-5, -7)$

Q2 Solve the following equations. (find what values of x & y make them true).

$$x - 3y \geq 8$$

$$y + 6x \geq 7$$

Q3 Simplify the following expression

$$\frac{3 + \frac{2}{x}}{x(1-x) + 3(-x \div 2)}$$

Q4 Find the expected value of V given the following frequency distribution. (Use a calculator).

V	0	3	4	7	8
$f(V)$	20	10	15	20	10

Q5. What is the probability of $V = 7$ in the frequency distribution above?

Q6 If the speed of a car is 100 km/hr., how many km will it travel in 100 minutes?

3	5	6	8	0
6	5	21	01	05

Q7. If 10 men can build a home in 20 days, how many men are needed to build 3 homes in 10 days?

Q8 There are 5 boys and 5 girls in a party. How many ways can you pick 2 boys and 2 girls for a game of Monopoly requiring 4 kids?

Q9 There are 5 cars in a ~~car~~ rally. How many different outcomes (rankings) of the cars can happen?

Q10 How many distinct teams of 11 players can be formed from a class of 15 students?

Q11 If the probability of a baseball game ~~on~~ falling on ~~a~~ a sunny day is 0.3, and probability of a sunny day is 60%, what is the probability of today ~~being~~ being the day of a baseball game, given that it is sunny today? Assume baseball games are scheduled with some consideration paid to weather.