Reading 2 Random Variables

Task 1: Calculate expected return and standard deviation for following projections using calculator 1-v function of TI BA II Plus calculator.

1 year MF return projection	Probability
-5%	20%
2%	15%
6%	25%
8%	40%

Ans:

Task 2: Give one real life example specifying constant for a variable (cX). (specify both c and X).

Task 3: Calculate the expected value of cZ using following information. (V Imp for exam)

Z = aX + bY (x and Y random variables)

E(X) = 36

E(y) = 29

a = 200

b = 100

c = 3.14

Task 4: Fill the following table.

Distribution	Mean	Skewness	Kurtosis and Excess K	Defining parameters
Normal distribution				
Standard normal distribution				
Students t distribution				
Leptokurtic distribution				
Platykurtic Distribution				
Mesokurtic Distribution				
Lognormal Distribution				

Task 5: Following Is the pointers on exam scores of 5 sections of class 10^{th}.

Sections	Median score	Q1 score	Q3 score	Max Score
Section A	44	40	65	80
Section B	56	48	68	84
Section C	36	30	48	76
Section D	66	36	75	90
Section E	40	30	55	86

Assuming passing score is 45 answer the following questions –

A: Which section has the highest deviation in exam score?

B: In which section maximum students cleared exam ?

C: Which section performed worst?

D: Is it possible to know the if the data is normally distributed or not using above information? If yes then how?

E: What is the difference between quantile and quartile?