Problems :- (DRV)

1) Let x be a d.r.v with the p.m.f given below:

x	-3	6	9
$P(x)$	$1/6$	$1/2$	$1/3$

Find $E[x]$, $E[x^2]$, $V(x)$,

4) Find the expectation of the number on die when thrown

3) Two unbiased dice are thrown. Find the expected values of the sum of numbers of points on them

4) Two dice are thrown. Let x assign to each point (a,b) in S the maximum of its numbers i.e $x(a,b) = \max(a,b)$ Find the probability distribution. X is a random variable with $X(S) = \{1,2,3,4,5,6\}$ Also find the mean, variance of the distribution

5) Two dice are thrown. Let X assign to each point (a, b) in S the minimum of its numbers i.e $X(a,b) = \min(a, b)$ Find the probability distribution. X is a random variable with $X(S) = \{1,2,3,4,5,6\}$ Also find the mean, Variance of the distribution

6) In four tosses of a coin, Let x be the number of heads. Find the mean and Variance of x.

7) obtain the probability distribution of x the number of heads in three tosses of a coin (or a simultaneous toss of three coins)

$$\mu = \frac{21}{6} = \frac{7}{2} = 3.5$$