Home work no.1

q1)tick the correct option from the given choices :-

a)Euclid's division lemma states that given positive a and b there exist unique integers q and r

satisfying a=bq+r where

a)r < 0   b)o <r <=b   c)o< = r < = b   d)o<=r<b

b)a positive even integer is in the form

a)2   b)2m   c)2m+-1   d)2m+1

c)the cube of any positive not in the form of:-

a)9q   b)9q+1   c)9q+3   d)9q+8

q4)show that every positive even integer is of the form 2q and that every

positive odd integer is of the form 2q + 1 where 'q'is any integer

Q5)show that every integer is in the form 3q or 3q+1or 3q+2 for the same integer q

Q6)show that any positive odd integer is of the form 4q +1 or 4q+3 ,where q is same integer

Q7show that the square of any positive integer is of the form 3m or 3m+1 for same integer

Q8)prove that one of every three consecutive positive integers is divisible by 3

Q9)use euclids division algorithm to find the hcf of following
A)135 and 225

B)196 and 38220