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1. Can we have any $n \in N$, wher 7^n ends with the digit zero?
2. Show that p^2 will leave a remainder 1 when divided by 8, if p is an odd positive integer.
3. Prove that the product of two consecutive positive integers is divisible by 2.
4. Prove that the square of any positive integer is of the form $4m$ or $4m + 1$ for some integer m.
5. Prove that the square if any positive integer is of the form $5m + 1$ will leave a remainder 1 when divided by 5 for some integer m.
6. Find the largest number which divides 615 and 963 leaving remainder 6 in each case.
7. Find the largest number that divides 2053 and 967 leaving a remainder of 5 and 7 respectively.
8. Find the greatest number that will divide 445, 572 and 699 leaving remainders 4, 5 and 6 respectively.
9. In a seminar the number of participants in Mathematics, English and Hindi are 336, 240 and 96. Find the minimum number of rooms required if in each room same number of participants is to be seated and all of them being in the same subject.
10. The length breadth and height of a room are 8m 25cm, 6m 75cm and 4m 50cm respectively. Determine the length of the longest rod which can measure the three dimensions of the room exactly.