

Check the divisibility rule by following questions

**Q1- Is the number 3075 divisible by 5? Explain the reason?**

**Q2- Can the number 135 be divided by 3 without a remainder?**

**Q3- Can 1020 be divided by 10 without any remainder?**

**Q4- Check if 573 is divisible by 9?**

**Q5- Determine if 1248 is divisible by 4?**

**Q6- Is the number 81 divisible by 3 and 9? ?**

**Q7- Is 123456 divisible by 11?**

**Q8- Can 987654 be divided by 9 without any remainder?**

**Q9- Is 468 divisible by 2, 3, and 6?**

**Q10- Check if 324 is divisible by 8?**

**Q11- Replace the \* by the smallest number so that  
2\*345 may be divisible by 3**

**Q12- Replace the \* by the smallest number so that  
78\*964 may be divisible by 9**

**Q13- Check if 19440 is divisible by 18?**

- Ans-1)** Yes, 3075 is divisible by 5. A number is divisible by 5 if its last digit is either 0 or 5. Since the last digit of 3075 is 5, it is divisible by 5.
- Ans-2)** Yes, 135 can be divided by 3 without a remainder. A number is divisible by 3 if the sum of its digits is divisible by 3. The sum of the digits of 135 is  $1+3+5 = 9$ , and 9 is divisible by 3.
- Ans-3)** Yes, 1020 can be divided by 10 without any remainder. A number is divisible by 10 if its last digit is 0. Since the last digit of 1020 is 0, it is divisible by 10.
- Ans-4)** No, 573 is not divisible by 9. A number is divisible by 9 if the sum of its digits is divisible by 9. The sum of the digits of 573 is  $5+7+3=15$ , and 15 is not divisible by 9.
- Ans-5)** Yes, 1248 is divisible by 4. A number is divisible by 4 if the number formed by its last two digits is divisible by 4. The last two digits of 1248 are 48, and 48 is divisible by 4.
- Ans-6)** Yes, 81 is divisible by both 3 and 9. A number is divisible by 3 if the sum of its digits is divisible by 3. The sum of the digits of 81 is  $8+1=9$ , and 9 is divisible by 3. Additionally, a number is divisible by 9 if the sum of its digits is divisible by 9, and since the sum is 9, it is also divisible by 9.
- Ans-7)** No, 123456 is not divisible by 11.
- Ans-8)** Yes, 987654 can be divided by 9 without any remainder. A number is divisible by 9 if the sum of its digits is divisible by 9. The sum of the digits of 987654 is  $9+8+7+6+4=39$ , and 39 is divisible by 9.
- Ans-9)** Yes, 468 is divisible by 2, 3, and 6.
- a) A number is divisible by 2 if its last digit is even, and the last digit of 468 is 8, which is even.
  - b) A number is divisible by 3 if the sum of its digits is divisible by 3. The sum of the digits of 468 is  $4+6+8=18$  and 18 is divisible by 3.
  - c) A number is divisible by 6 if it is divisible by both 2 and 3. Since 468 meets both criteria, it is divisible by 6.
- Ans-10)** Yes, 324 is divisible by 8. A number is divisible by 8 if the number formed by its last three digits is divisible by 8. Since 324 is less than 1000, we can check the entire number.  $324 \div 8 = 40.5$ ,  $324 \div 8 = 40.5$ , which is not an integer, so it is not divisible by 8.
- Ans-11)** \* is replaced by 1, so 21345 is divisible by 3.
- Ans-12)** The smallest number \* is 2, so 782964 is divisible by 9.
- Ans-13)** Yes, 19440 is divisible by 18. A number is divisible by 18 if it is divisible by both 2 and 9.