



1. Which of the following statements are true?

- (i) If a number is divisible by 2, it must be divisible by 6.
- (ii) If a number is divisible by 3, it must be divisible by 9.
- (iii) If a number is divisible by 9, it must be divisible by 3.
- (iv) If a number is divisible by 6, it must be divisible by 2 and 3.
- (v) If a number is divisible by both 9 and 10, it must be divisible by 90.

- (vi) If a number is divisible by 4, it must be divisible by 16.
- (vii) If a number divides the sum of two numbers exactly, it must exactly divide the number separately.
- (viii) If a number divides three numbers exactly, it must divide their sum exactly.
- (ix) The sum of two consecutive odd numbers is always divisible by 4.
- (x) If two numbers are co-prime, at least one of them must be a prime number.

2. If the number $463x5$ is divisible by 3, where x is a digit, what are the possible values of x ?
 3. If the number $71x18$ is divisible by 3, where x is a digit, what are the possible values of x ?
 4. If the number $5x378$ is divisible by 6, where x is a digit, what are the possible values of x ?
 5. If the number $25698x$ is divisible by 9, where x is a digit, what are the possible values of x ?
 6. If the number $95x693$ is divisible by 9, where x is a digit, what are the possible values of x ?
 7. If the number $93x41$ is divisible by 11, where x is a digit, what are the possible values of x ?
 8. Without actual division, find the remainder, when:
 - (i) 1921 is divided by 3
 - (ii) 110768 is divided by 5
 - (iii) 88480 is divided by 9
 - (iv) 1358021 is divided by 11
 9. Without performing actual division, find the remainder, when 28735429 is divided by 11.
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