



Exercise 2B

(i) 826 is divisible by 7.

We have $82 - 2 \times 6 = 70$, which is a multiple of 7.

(ii) 117 is not divisible by 7.

We have $11 - 2 \times 7 = -3$, which is not a multiple of 7.

(iii) 2345 is divisible by 7.

We have $234 - 2 \times 5 = 224$, which is a multiple of 7.

(iv) 6021 is divisible by 7.

We have $602 - 2 \times 1 = 600$, which is not a multiple of 7.

(v) 14126 is divisible by 7.

We have $1412 - 2 \times 6 = 1400$, which is a multiple of 7.

(vi) 25368 is divisible by 7.

We have $2536 - 2 \times 8 = 2520$, which is a multiple of 7.

Q7

Answer :

A number is divisible by 8 if the number formed by the last three digits (digits in the hundreds, tens and units places) is divisible by 8.

(i) 9364 is not divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 364, is not divisible by 8.

(ii) 2138 is not divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 138, is not divisible by 8.

(iii) 36792 is divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 792, is divisible by 8.

(iv) 901674 is not divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 674, is not divisible by 8.

(v) 136976 is divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 976, is divisible by 8.

(vi) 1790184 is divisible by 8.

It is because the number formed by its hundreds, tens and ones digits, i.e., 184, is divisible by 8.

Q8

Answer :

A number is divisible by 9 if the sum of its digits is divisible by 9.

(i) 2358 is divisible by 9, because the sum of its digits, $2 + 3 + 5 + 8$, is 18, which is divisible by 9.

(ii) 3333 is not divisible by 9, because the sum of its digits, $3 + 3 + 3 + 3$, is 12, which is not divisible by 9.

(iii) 98712 is divisible by 9, because the sum of its digits, $9 + 8 + 7 + 1 + 2$, is 27, which is divisible by 9.

(iv) 257106 is not divisible by 9, because the sum of its digits, $2 + 5 + 1 + 0 + 6$, is 21, which is not divisible by 9.

(v) 647514 is divisible by 9, because the sum of its digits, $6 + 4 + 7 + 5 + 1 + 4$, is 27, which is divisible by 9.

(vi) 326999 is not divisible by 9, because the sum of its digits, $3 + 2 + 6 + 9 + 9 + 9$, is 38, which is not divisible by 9.

Q9

Answer :

A number is divisible by 10 if its ones digit is 0.

(i) 5790 is divisible by 10, because its ones digit is 0.

(ii) 63215 is not divisible by 10, because its ones digit is 5, not 0.

(iii) 55555 is not divisible by 10, because its ones digit is 5, not 0.

Q10

Answer :

A number is divisible by 11 if the difference of the sum of its digits at odd places and the sum of its digits at even places is either 0 or a multiple of 11.

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