Ex-9(c)

Q1) Find which of the following numbers are divisible by 2:

(i) 352
The given number = 352
Digit at units place = 2
Ans So, 352 is divisible by 2.

(ii) 523
The given number = 523
Digit at units place = 3
Ans So 523 is not divisible by 2.

(iii) 496
The given number = 496
Digit at units place = 6
Ans- So; 496 is divisible by 2.

(iv) 649
The given number = 649
Digit at units place = 9
Ans- So; 649 is not divisible by 2.

Q2) Find which of the following number are divisible by 4:

(i) 222
The given number = 222
The number formed by tens and units digit is 22, which is not divisible by 4.

Ans- So, 222 is not divisble by 4.

(ii) 532

The given number = 532

The number formed by tens and units digit is 32, which is divisible by 4.

Ans- So, 532 is divisible by 4.

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(iii) 678

The given number = 678

The number formed by tens and units digit is 78, which is not divisible by 4.

Ans- So, 678 is not divisible by 4.

(iv) 9,232

The given number = 9,232

The number formed by tens and units digit is 32, which is divisible by 4.

Ans- So, 9,232 is divisible by 4.

Q8. Find which of the following numbers are divisible by 8:

(i) 324

Given number = 324

Number formed by the hundreds, tens and units digit = 324

Divisible by 8 = No

Ans- So, 324 is not divisible by 8.

(ii) 2536

The given number = 2536

Number formed by the hundreds, tens and units place = 536

Divisible by 8 = Yes

Ans- So, 2536 is divisible by 8.

(iii) 92,760
Given number = 92,760
Number formed by the hundreds, tens and units digit = 760
Divisible by 8 = Yes

Ans- So; 92,760 is divisible by 8.

(iv) 4,44,320
Given number = 4,44,320
Number formed by the hundreds, tens and units digit = 320
Divisible by 8 = Yes

Ans- So; 4,44,320 is divisible by 8.

Q4. Find which of the following numbers are divisible by 3:

(i) 221
2 + 2 + 1 = 5
Here, 5 is not divisible by 3.
Ans- So, 221 is not divisible by 3.

(ii) 543
5 + 4 + 3 = 12
Here, 12 is divisible by 3.
Ans- So, 543 is divisible by 3.

(iii) 28,492

2+8+4+9+2 = 25

Here, 25 is not divisible by 3.

Ans- So; 28,492 is not divisible by 3.

(iv) 92,349

9+2+3+4+9 = 27

Here, 27 is divisible by 3.

Ans- So; 92,349 is divisible by 3.

Q5 (i) Find which of the following numbers are divisible by 9:

(i) 1332

1+3+3+2 = 9

9 is divisible by 9.

So, 1332 is divisble by 9.

(ii) 53,247

5+3+2+4+7 = 21

21 is not divisible by 9.

So, 53,247 is not divisible by 9.

(iii) 4968

4+9+6+8 = 27

27 is divisible by 9.

So, 4968 is divisible by 9.

(iv) 2,00,314

2+0+0+3+1+4 = 10

10 is not divisble by 9.

So, 2,00,314 is not divisble by 9.

Q6. Find which of the following numbers are divisible by 6.

(i) 324

324 = Divisible by 2

3+2+4 = Divisible by 3

Ans So, 324 is divisible by 6.

(ii) 2010

2010 = Divisible by 2

2+0+1+0 = Divisible by 3

Ans So, 2010 is divisible by 6

(iii) 33,278

33,278 = Divisible by 2

3+3+2+7+8 = (23) Not Divisible by 3

Ans So; 33,278 is not divisibly by 6.

(iv) 15,505

15,505 = Not divisible by 2

1+5+5+0+5 = (16) Not divisible by 3.

Ans So; 15,505 is not divisible by 6.

Q7. Find which of the following numbers are divisible by 5:

(i) 5080

5080 - As its unit digit has 0 or 5.

Ans So; 5080 is divisible by 5.

(ii) 66,666

66,666 = Units-place = 6

Ans So; 66,666 is not divisible by 5.

(iii) 755

755 = Units place = 5

So, 755 is divisibly by 5.

(iv) 9207

9207 = Units place = 7

Ans- So; 9,207 is not divisible by 5.

8. Find which of the following numbers are divisible by 10:

(i) 9,990 (A number is divisble by 10 if it is divisible by both 2 and 5)

9,990 = divisble by 2 and 5

Ans- So; 9,990 is divisible by 10.

(ii) 0

Ans- Yes, 0 is divisble by 10.

(iii) 847 =

847 = Not divisble by 2 and 5

So; 847 is not divisble by 10.

(iv) 8976

8976 = ~~Not~~ divisible by 2 ~~and 5~~ but not divisible by 5

So; 8,976 is not divisible by 5.

9. Find which of the following numbers are divisble by 11

(i) 5918

~~5+9~~ Sum of digits at odd = 5 + 1 = 6

Sum of digits at even = 9 + 8 = 17

Difference = 17 - 6 = 11

Ans- So; 5,918 is divisible by 11.

(ii) 68,717

Sum of digits at odd = 6+7+7 = 20
Sum of digits at even = 8+1 = 9
Difference = 20-9 = 11
Ans- So; 68,717 is divisible by 11.

(iii) 3882
Sum of digits at odd - 3+8 = 11
Sum of digits at even = 8+2 = 10
Difference = 11-10 = 1
Ans- So; 3,882 is not divisible by 11.

(iv) 10,857
Sum of digits at odd = 1+8+7 = 16
Sum of digits at even = 0+5 = 5
Difference = 16-5 = 11
Ans- So; 10,857 is divisible by 11.

10) Find which of the following numbers are divisible by 15. (if it is divisible by 3 and 5)

(i) 960
Unit place of 960 = 0 (divisible by 5)
9+6+0 = 15 (divisible by 3)
Ans- So; 960 is divisible by 15.

(ii) 8,295
8,295 (5) = Divisible by 5
8+2+9+5 = 24 (Divisible by 3)
Ans- So; 8,295 is divisible by 15.

(iii) 10,243
10,243 = Not divisible by 5
1+0+2+4+3 = 10 (Not divisible by 3)

Ans- So, 10,248 is not divisible by 15.

(iv) 5013

5013 = Not divisible by 5

5+0+1+3 = 9 (Divisible by 3)

(As here the rule says that it should be both divisible by 5 and 3, but here it is divisible by 3 and not by 5))

Ans- So, 5013 is not divisible by 15.

11. In each of the following numbers, replace M by the smallest whole number to make the resulting number divisible by 3:

(i) 64 M 3

6+4+3 = 13

13 + ? = ? (a number which will be divisible by 3)

13 + 2 = 15

Ans- So, the number is 6423.

(ii) 46 M 46

4+6+4+6 = 20

20 + ? = ?

20 + 1 = 21

Ans- So, the number is 46146

(iii) 27 M 53

2+7+5+3 = 17

17 + ? = ?

17 + 1 = 18

Ans- So, the number is 27153.

(iv)

12. In each of the following numbers, replace M by the smallest whole number to make the resulting number divisible by 9:

(i) 76M91

7+6+9+1 = 23

23 + ? = ?

23 + 4 = 27

Ans So; the number is 76491.

(ii) 77548 M

7+7+5+4+8 = 31

31 + ? = ?

31 + 5 = 36

Ans So; the number is 775485

(iii) 627 M 9

6+2+7+9 = 24

24 + ? = ?

24 + 3 = 27

Ans So; the answer is 62739.

13. In each of the following numbers, replace M by the smallest whole number to make the resulting number divisible by 11:

(i) 39 M 2

3 9 M 2

Difference: 11 − (3 − M) = 0

11 − 3 − M = 0

M = 8

3	9
+ M	+ 2
	11

3982

(ii) 3 M 422

3 M 4 2 2

2	2
+ 4	+ M
3	
11	

11 − 2 − M = 0

M = 9

9 − (2 + M) = 0

9 − 2 − M = 0

M = 7

39722

(iii) 70975 M

7 0 9 7 5 M

M	5
+ 7	+ 9
0	7
	21

Difference = 21 − (7 + M) = 0

21 − 7 − M = 0

M = 14

Ans So, it will be 7097514.

(iv) 14 M 75

14 M 7 5

5	7
+ M	+ 4
1	11
6 + M =	

11 − (6 + M) = 0

11 − 6 − M = 0

M = 5

Ans - So, the number is 14575.

14. State True of false:

(i) If a number is divisible by 4. It is divisible by 8. False

(ii) If a number is a factor of 16 and 24, it is a factor of 48. True

(iii) If a number is divisible by 18, it is divisible by 3 and 6. True

(iv) If a divides both b and c completely, then a divides (i) a+b (ii) a-b also completely True