HW
10/7/21

Ex - 9(C)

1. divisible by 2

i) 352 = Yes it is divisible by 2

ii) 523 = No, it is not divisible by 2

iii) 496 - Yes, it is divisible by 2

iv) 649 = No, it is not divisible by 2

2. Divisible by 4

i) 222 = No, it is not divisible by 4 because 22 is not divisible 4.

ii) 532 = Yes it is divisible by 4.

iii) 678 = No it is not divisible by 4.

iv) 9232 = Yes, it is divisible by 4.

4. Divisible by 3.

i) 221 = 2+2+1 = 5 No, it is not divisible by 3

ii) 543 = 5+4+3 = 12 Yes, it is divisible by 3

iii) 28492 = 2+8+4+9+2 = 25 No, it is divisible by 3

iv) 92349 = 9+2+3+4+9 = 27, Yes it is divisible by 3

5. Divisible by 9

i) 1332 = 1+3+3+2 = 8, No

ii) 2010 = 2+0+1+0 = 3, No

iii) 4968 = 4+9+6+8 = 27, Yes

iv) 200314 = 2+3+1+4 = 10, NO

6. Divisibility by 6

i) 324 = it is divisible by both 2 and 3
∴ it is divisible 6

ii) 2010 = it is divisible by 6

iii) 33218 = No it is not divisible by ~~2 and~~ both 3
∴ it is not divisible by 6

iv) 15505 = NO it is not divisible by 6

7) Divisible by 5

i) 5080 = Yes, it is divisible by 5

ii) 66666 = NO, it is not divisible by 5

iii) 765 = Yes, it is divisible by 5

iv) 9805 = Yes, it is divisible by 5

8. Divisible by 10.

i) 9990 = Yes it is divisible by 10

ii) 0 = Yes it is because the unit place is 0

iii) 847 = NO, it is not divisible by 10

iv) 8476 = NO, It is not divisible by 10

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Divisibility rules

8 - The number represented by its last three digits is divisible by 8

Eg. 27

11 = eg. 23579

Sum of digit in odd place = 2+5+9
= 16

Sum of digit in even place = 3+7
= 10

Diffrence of the sum of odd place and even place : 16 - 0 = 6

6 is not divisibility by 11

So, 23579 is not divisibility.

Ex - 9(C)

Q9. Divisible by 11

sum of

ii) 68,717 → Digits in odd place = 6+7+7
= 20

Sum of digits in even place = 8+1
= 9

Difference of the sum = 20 - 9
= 11

11 is divisible by 11

So, 68,717 is divisible by 11

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

(i) 64M3
6 + 4 + M + 3 = 13 + M
64M3 is divisible by 3 if 13 + m is divisible by 3
If m = 2; 13 + 2 = 15 divisible 3
Smallest no = 6423

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

(i) 76M91
7 + 6 + M + 9 + 1 = 23 + m
M = 4
= 23 + 4 = 27
Smallest no. 76491

H.W.
Ex - 9(C)

3. (i) 324 = is not divisible by 8 i.e. 1 ÷ 2

(ii) 2536 = is divisible by 8

(iii) 92760 = is divisible by 8

(iv) 444320 = is divisible by 8

Q9. Divisible by 11
(i) 5918 = Sum of digit in odd place
= 9 + 8 = 17

Sum of digit in even place = 5 + 1 = 6
Difference of the sum = 17 - 6 = 11
Yes it is divisible by 11

iii) 3882 = Sum of odd place = 8 + 2 = 10
Sum of even place = 3 + 8 = 11
Difference of sum = 10 - 11 = 1
No, it is not divisible by 11

iv) 10857 = Sum of odd place = 1 + 8 + 7
Sum of even place = 0 + 5 + 5 = 16
Difference of sum = 16 - 5 = 11
Yes, it is ~~not~~ divisible by 11.

11.

i) 46M46

4 + 6 + M + 4 + 6 = 20 + M
46M46 is divisible by 11. So m = 2
20 + 2 = 22. Smallest no. ~~46246~~ 46146

ii) 27M53

2 + 7 + M + 5 + 3 = 17 + M
27M53 is divisible by 11. So m = 2 17 + 2
= 19. Smallest no. 27153

12.

ii) 77548M

7 + 7 + 5 + 4 + 8 + M = 33
77548M is divisible by 9.

If m = 0, 33 + 0 = 33 Smallest no.
77540 ✓

iii) 627 M 9

6 + 2 + 7 + M + 9 = 24 + M
627 is divisible by 9 if m = 3
24 + 3 = 27 Smallest no = 62739

14. State True and False

i) If a no. is divisible by 4. It is divisible by 8. false

ii) If a no. is a factor of 16 and 24, it is a factor of 48. true

iii) If a no is divisible by 18, it divisible by 3 and 6. True

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

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CW
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Divisibity by 15

15 = 3 x 5 are co-prime

A no. is divisible by 15 if it is divisible by 15

Q10.

ii) 960 : 960 is divisible by 3
960 is divisible by 5
So, it is divisible by 95

ii) 8295 = 8295 is divisible by 3 and
∴ it is divisible by 15

iii) 10243 = It is not divisible by 5
∴ It is not divisible by 15

iv) 5013 = It is not divisible by 5
∴ It is not divisbile by 15

Q13

i) 39m2 :
Sum of odd place digits = 2+9 = 11
Sum of even place = 3+m
= 11 - (3+m) = 11 - 3 - m = 8 - m
∴ 8 - m = 0
m = 8
The required no is 3982

ii) 3M422
Sum of odd place digit = 4 + 2 + 3 = 9
Sum of odd place digit = 2+m
= 9 - (2+m) = 9 - 2 - m = 17 - m
= 17 - 7 = 0
= m = 7

∴ The required number is 37422

iii) 70975M

Sum of digit odd place = 0 + 7 + M = 7 + M

Sum of digit odd place = 7 + 9 + 5 = 21

= 21 ÷ (7 + m) = 21 − 7 − m = 14 − m

= 14 − m = 11

= m = 3

The required no. is 709753

iv) 14M75

Sum of digit in odd place = 1 + M + 5 = 6 + M

Sum of digit in even place = 4 + 7 = 11

= 11 − (6 + m) = 5 − 6 − m = 1 − m

= 1 − m = 0

= m = 1

The required no. is 14175.

6/9/21

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