Divisibility Rules for 1 to 12 & Prime Numbers to 100

Tutoring Centre Ferndale

Is some number evenly divisible by:

1. all whole numbers are divisible by 1.

2. is the last digit even? (0, 2, 4, 6 or 8)

124: 4 is even. ✓

3. is the sum of its digits divisible by 3?

123: $1 + 2 + 3 = 6$ ✓

4. are the last two digits divisible by 4?

$1,036 : 36 = 6 \times 4$ ✓

5. is the last digit 0 or 5?

1,035: 1,035 ends in 5. ✓

6. is it divisible by both 2 and 3?

2,340: 2,340 is even, and $2 + 3 + 4 + 0 = 12$ ✓

7. is 5 times the ones digit plus the rest of the number a multiple of 7?

$18,123 : 5 \times 3 + 1,312 = 1,827$

$1827 : 5 \times 7 + 182 = 217$
$217 : 5 \times 7 + 21 = 56 = 5 \times 7$ ✓

8. is the ones digit plus two times the rest of the number divisible by 8?

$4,496 : 6 + 2 \times 449 = 904 = 113 \times 8$ ✓

9. is the sum of its digits divisible by 9?

$3,267 : 3 + 2 + 6 + 7 = 18$ ✓

10. is the last digit 0?

7,240: The last digit is 0. ✓

11. is the sum of pairs of its digits divisible by 11?

$98,615 : 9 + 86 + 15 = 110$ ✓

12. is it divisible by both 3 and 4?

$1,236 : 1 + 2 + 3 + 6 = 12$ ✓

13. is the rest of the number minus 9 times it's last digit divisible by 13?

$676 : 67 - 9 \times 6 = 67 - 54 = 13$ ✓

17. is the rest of the number minus 5 times the last digit divisible by 17?

$544 : 54 - 5 \times 4 = 54 - 20 = 34$ ✓

19. is the rest of the number plus twice the last digit divisible by 19?

$209 : 20 + 2 \times 9 = 20 + 18 = 38$ ✓

23. is the rest of the number plus 7 times the last digit divisible by 23?

$253 : 25 + 3 \times 7 = 25 + 21 = 46$ ✓

29. is the rest of the number plus 3 times the last digit divisible by 29?

$348 : 34 + 3 \times 8 = 34 + 24 = 58$ ✓

31. is the rest of the number minus 3 times the last digit divisible by 31?

$372 : 37 - 3 \times 2 = 37 - 6 = 31$ ✓)

37. is the rest of the number minus 11 times the last digit divisible by 37?

$962 : 96 - 11 \times 2 = 96 - 22 = 74$ ✓

41. is the rest of the number minus 4 times the last digit divisible by 41?

$246 : 24 - 4 \times 6 = 24 - 24 = 0$ ✓

43. is the rest of the number plus 13 times the last digit divisible by 43?

$516 : 51 + 13 \times 6 = 51 + 78 = 129$ ✓

47. is the rest of the number plus 14 times the last digit divisible by 14?

$564 : 56 + 14 \times 4 = 56 + 56 = 112$ ✓

53. is the rest of the number plus 16 times the last digit divisible by 53?

$742 : 74 + 16 \times 2 = 74 + 32 = 106$ ✓

59. is the rest of the number plus 6 times the last digit divisible by 59?

$826 : 82 + 6 \times 6 = 82 + 36 =$ ✓

61. is the rest of the number minus 6 times the last digit divisible by 61?

$793 : 79 - 6 \times 3 = 79 - 18 = 61$ ✓)

67. is the rest of the number minus 20 times the last digit divisible by 67?

$804 : 80 + 20 \times 4 = 80 - 80 = 0$ ✓

71. is the rest of the number minus 7 times the last digit divisible by 71?

$852 : 85 - 7 \times 2 = 85 - 14 = 71$ ✓

73. is the rest of the number plus 22 times the last digit divisible by 73?

$949 : 94 + 22 \times 9 = 94 + 198 = 292$ ✓

79. is the rest of the number plus 8 times the last digit divisible by 79?

$1,185 : (118 + 8 \times 5 = 118 + 40 = 158$ ✓

83. is the rest of the number plus 25 times the last digit divisible by 83?

$1,245 : 124 + 25 \times 5 = 124 + 125 = 249$ ✓

89. is the rest of the number plus 9 times the last digit divisible by 89?

$801 : 80 + 9 \times 1 = 89$ ✓

97. is the rest of the number minus 29 times the last digit divisible by 97?

$1,164 : 116 + 29 \times 4 = 116 - 116 = 0$ ✓