

Divisibility Rules

Learning Target: I can use divisibility rules to find factors

A number can be divided by . . .



All whole numbers are divisible by 1

Rule

Divisibility Rules

Not divisible by 2

3

19

67

21

35



Divisible by 2

6

52

30

14

78

If the number is even.
(Ends in 0, 2, 4, 6, 8)

Rule

Divisibility Rules

Not divisible by 3

13

65

32

26

265



Divisible by 3

9

78

39

21

189

If the sum of the digits can
be divided by 3.

Rule

Divisibility Rules

Not divisible by 4

362

109

673

21

425



Divisible by 4

32

124

608

384

116

If the numbers last two digits
can be divided by 4.

Rule

Divisibility Rules

Not divisible by 5

42

584

733

99

246



Divisible by 5

65

960

425

300

115

If the last digit ends
in a 5 or 0.

Rule

Divisibility Rules

Not divisible by 6

47

317

89

293

704



Divisible by 6

42

246

90

114

528

If the number can be
divided by 2 and 3.

Rule

Divisibility Rules

Not divisible by 7

32

250

67

78

351



Divisible by 7

49

700

21

154

322

There is no simple
rule for 7

Rule

Divisibility Rules

Not divisible by 8

50

317

79

1647

405



Divisible by 8

64

1320

88

800

2968

If the last 3 digits
can be divided by 8.

Rule

Divisibility Rules

Not divisible by 9

86

397

622

48

409



Divisible by 9

63

801

423

261

972

If the sum of the digits
can be divided by 9.

Rule

Divisibility Rules

Not divisible by 10

308

95

89

674

1001



If the last digit is
zero

Divisible by 10

30

5000

840

90

700

Rule

Divisibility Rules

| Word | Description | |
|----------------------|---|----|
| <input type="text"/> | If the sum of the digits is divisible by 9 | 10 |
| <input type="text"/> | If the last 3 digits are divisible by ____ then the number is divisible by ____ | 9 |
| <input type="text"/> | If the sum of the digits can be divided by 3 | 5 |
| <input type="text"/> | If the number is divisible by 2 and 3 then it is also divisible by ____ | 2 |
| <input type="text"/> | If the last two digits are divisible by ____ then the number is divisible by ____ | 6 |
| <input type="text"/> | If the last digit is 0 or 5 | 4 |
| <input type="text"/> | If the last digit is 0 | 8 |
| <input type="text"/> | If the number is even it is always divisible by this number | 3 |

Prime Numbers Up to 200

2,3,5,7,11,13,17,19,23,29,31,37,41,43,47,
53,59,61,67,71,73,79,83,89,97,101,103,
107,109,113,127,131,137,139,149,151,
157,163,167,173,179,181,191,193,197,
199