

Divisibility Tests

2 Any number which ends in 2, 4, 6, 8 or 0 is divisible by 2.
e.g. the numbers 36, 80, 104, 682 are all divisible by 2.

3 Find the digit sum of the number. If the sum is divisible by 3, then so is the original number.
e.g. $144 \rightarrow 1 + 4 + 4 = 9$. 9 is divisible by 3, so 144 will also be divisible by 3.

4 If the last two digits of the number are divisible by 4, then the number will be divisible by 4.
e.g. $187\underline{24}$ is divisible by 4 because 24 is divisible by 4.

5 A number is divisible by 5 if it ends in 5 or 0.
e.g. the numbers 55, 70, 85, 905, 13025 are all divisible by 5.

10 A number is divisible by 10 if it ends in 0.
e.g. the numbers 20, 30, 50, 80, 200 are all divisible by 10.

100 A number is divisible by 100 if it ends in 00.
e.g. the numbers 300, 400, 600, 8500, 1823900 are all divisible by 100.

Bronze

1) Circle the numbers below that divide by 2:

4 3 67 42 93 65 24 86 102 50

2) Circle the numbers below that divide by 5:

90 27 15 32 65 97 90 25 30 33

3) Circle the numbers below that divide by 10:

80 30 32 46 70 100 102 130 500 78

Silver

Use divisibility tests to find out if the following numbers divide by 2, 3, 4, 5, 10 or 100.

1) 34

5) 68

2) 70

6) 120

3) 45

7) 3400

4) 96

8) 450

Gold

1) Continue the patterns. What do you notice?

a) $2 \times 9 = 18$

$1 + 8 = 9$

b) $1520 \times 8 = 12160$

$3 \times 9 = 27$

$2 + 7 = \dots$

$1521 \times 8 = 12168$

$4 \times 9 = \dots$

$1522 \times 8 = \dots$

2) Write down your 6 times table up to 12×6 . Use divisibility tests to find out what each product can be divided by.

e.g. $2 \times 6 = 12$

This is divisible by 2, 3, 4 and 6.

What do you notice?

Can you come up with a rule for divisibility by 6?