

0 \times **0** = **0**
1 \times **1** = **1**
2 \times **2** = **4**
3 \times **3** = **9**
4 \times **4** = **16**
5 \times **5** = **25**
6 \times **6** = **36**
7 \times **7** = **49**
8 \times **8** = **64**
9 \times **9** = **81**

If I know... then I also know...

The digit sum of multiples of 6 is 3, 6 or 9

All multiples of 6 are even numbers.

0 \times **10** = **0**
1 \times **10** = **10**
2 \times **10** = **20**
3 \times **10** = **30**
4 \times **10** = **40**
5 \times **10** = **50**
6 \times **10** = **60**
7 \times **10** = **70**
8 \times **10** = **80**
9 \times **10** = **90**

The digit sum of multiples of 9 is 9

An odd number multiplied by 9 gives an odd product.

An even number multiplied by 9 gives an even product.

0 \times **100** = **0**
1 \times **100** = **100**
2 \times **100** = **200**
3 \times **100** = **300**
4 \times **100** = **400**
5 \times **100** = **500**
6 \times **100** = **600**
7 \times **100** = **700**
8 \times **100** = **800**
9 \times **100** = **900**

An odd number multiplied by 7 gives an odd product.

An even number multiplied by 7 gives an even product.

64 \times **0** = **0**
The product of a number and zero is zero.

64 \times **1** = **64**
The product of a number and 1 is the number itself.

64 \div **1** = **64**
The quotient when dividing a number by 1 is the number itself.

0 \times **11** = **0**
1 \times **11** = **11**
2 \times **11** = **22**
3 \times **11** = **33**
4 \times **11** = **44**
5 \times **11** = **55**
6 \times **11** = **66**
7 \times **11** = **77**
8 \times **11** = **88**
9 \times **11** = **99**

If I know... then I also know...

If the digits are the same then a 2-digit number is divisible by 11

An odd number multiplied by 11 gives an odd product.

0 \times **12** = **0**
1 \times **12** = **12**
2 \times **12** = **24**
3 \times **12** = **36**
4 \times **12** = **48**
5 \times **12** = **60**
6 \times **12** = **72**
7 \times **12** = **84**
8 \times **12** = **96**
9 \times **12** = **108**

A number is divisible by 12 if it is divisible by 3 and 4

All multiples of 12 are even numbers.

12 \times **6** = **72**
6 \times **12** = **72**
12 \times **12** = **144**
6 \times **12** = **72**
12 \div **6** = **2**
12 \div **12** = **1**

5 \times **2** \times **6** = **60**
5 \times **2** \times **6** = **60**
5 \times **2** \times **6** = **60**

If I know... then I also know...

300 \div **3** = **100**

3 is one hundred times smaller than 300

divisor
dividend
quotient
remainder

252 \div **6** = **42**
 $= 240 \div 6 + 12 \div 6$
 $= 40 + 2$
 $= 42$

If I know $24 \div 6 = 4$ then I also know $240 \div 6 = 40$

426 \div **3** = **142**

320 \div **10** = **32**

30 is ten times smaller than 300
20 divided by ten is 2

320 \div **4** = **80**

If I know $24 \div 4 = 6$ then I know $240 \div 4 = 60$

52 \div **4** = **13**
 $= 40 \div 4 + 12 \div 4$
 $= 10 + 3$
 $= 13$

I know that 40 is 10 groups of 4

0 \times **3** = **0**
1 \times **3** = **3**
2 \times **3** = **6**
3 \times **3** = **9**
4 \times **3** = **12**
5 \times **3** = **15**
6 \times **3** = **18**
7 \times **3** = **21**
8 \times **3** = **24**
9 \times **3** = **27**

If I know... then I also know...

The digit sum of multiples of 3 is 3, 6 or 9

An odd number multiplied by 3 gives an odd product.

0 \times **4** = **0**
1 \times **4** = **4**
2 \times **4** = **8**
3 \times **4** = **12**
4 \times **4** = **16**
5 \times **4** = **20**
6 \times **4** = **24**
7 \times **4** = **28**
8 \times **4** = **32**
9 \times **4** = **36**

All multiples of 4 are even numbers.

There is a repeating pattern in the ones column: 0, 4, 8, 2, 6

0 \times **8** = **0**
1 \times **8** = **8**
2 \times **8** = **16**
3 \times **8** = **24**
4 \times **8** = **32**
5 \times **8** = **40**
6 \times **8** = **48**
7 \times **8** = **56**
8 \times **8** = **64**
9 \times **8** = **72**

All multiples of 8 are even numbers.

All multiples of 8 are also multiples of 2 and 4

9423 \div **3** = **3141**

1000s | 100s | 10s | 1s

divisor
dividend
quotient
remainder

If I know... then I also know... because...

056r1
63437

If I know... then I also know... because.

08 \times **7** = **8** \times **7** = **10**
42 \times **5** = **42** \div **2** **56,000** \div **80** = **700**

2427
x 38
19416
72810
92226

01qr3
24|3339

01q15
24|3339000

3391 \div **24** = **139** r**3** = **139** $\frac{3}{24}$
= **139** $\frac{1}{8}$ (to 2dp)

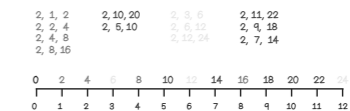
Half of 6 is 3
6 shared equally into 2 groups is 3 in each group

12 divided equally into 3 groups is 4 in each group

The groups are equal

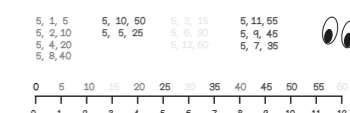
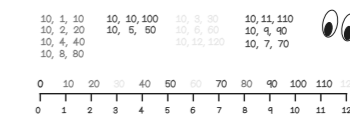
12 divided equally into groups of 3 is 4 groups

There are four 3s in twelve



2 \times **5** = **10** **5** \times **2** = **10**
10 \div **2** = **5** **10** \div **5** = **2**
5 \div **10** = **2** **2** \div **10** = **5**

If I know... then I also know...



0 \times **10** = **0**
1 \times **10** = **10**
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6 \times **10** = **60**
7 \times **10** = **70**
8 \times **10** = **80**
9 \times **10** = **90**

0 \times **11** = **0**
1 \times **11** = **11**
2 \times **11** = **22**
3 \times **11** = **33**
4 \times **11** = **44**
5 \times **11** = **55**
6 \times **11** = **66**
7 \times **11** = **77**
8 \times **11** = **88**
9 \times **11** = **99**