



George Spicer Maths "Cheat Sheet"



Fraction, Percentages & Decimal

Fraction	Percentage	Decimal
1/1	100%	1.0
1/2	50%	0.50
1/4	25%	0.25
3/4	75%	0.75
1/5	20%	0.20
3/5	60%	0.60
1/10	10%	0.10
7/10	70%	0.70
1/100	1%	0.01
13/100	13%	0.13

Halving...

Ones	Tens	Hundreds
1 - 0.5	10 - 5	100 - 50
2 - 1.0	20 - 10	200 - 100
3 - 1.5	30 - 15	300 - 150
4 - 2.0	40 - 20	400 - 200
5 - 2.5	50 - 25	500 - 250
6 - 3.0	60 - 30	600 - 300
7 - 3.5	70 - 35	700 - 350
8 - 4.0	80 - 40	800 - 400
9 - 4.5	90 - 45	900 - 450

Conversions

10mm	1cm (centimetre)
100cm	1m (metre)
1000m	1km (kilometre)
1000g	1kg (kilogram)
1000ml	1L (litre)
60mins	1 hour
24hours	1 day
100p	£1

Multiplying and Dividing by 10,100,1000

1234 ÷ 10 =	123.4
1234 ÷ 100 =	12.34
1234 ÷ 1000 =	1.234
567 ÷ 10 =	56.7
567 ÷ 100 =	5.67
567 ÷ 1000 =	0.567
89 ÷ 10 =	8.9
89 ÷ 100 =	0.89
89 ÷ 1000 =	0.089

Place Value

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	●	Tenths	Hundredths	Thousandths
1,000,000	100,000	10,000	1,000	100	10	1	●	0.1	0.01	0.001

Why the answer works...

It must be... because...
 This is true here because...
 This is always true because...

Why the answer does not work...

It can't be... because...
 This is false here because...
 This is always false because...

Asking questions of your working...

How do you know...?
 What do you think...?
 Is this always the case...?
 What is the pattern...?
 Have you worked systematically...?
 Is this the most efficient method...?

Finding links with your working...

I know... so therefore...
 I already know that... so therefore...
 I know that... because...
 This is the same because...
 This is different because...
 If... then...

0 X 1 = 0
1 X 1 = 1
2 X 1 = 2
3 X 1 = 3
4 X 1 = 4
5 X 1 = 5
6 X 1 = 6
7 X 1 = 7
8 X 1 = 8
9 X 1 = 9
10 X 1 = 10
11 X 1 = 11
12 X 1 = 12

0 X 2 = 0
1 X 2 = 2
2 X 2 = 4
3 X 2 = 6
4 X 2 = 8
5 X 2 = 10
6 X 2 = 12
7 X 2 = 14
8 X 2 = 16
9 X 2 = 18
10 X 2 = 20
11 X 2 = 22
12 X 2 = 24

0 X 3 = 0
1 X 3 = 3
2 X 3 = 6
3 X 3 = 9
4 X 3 = 12
5 X 3 = 15
6 X 3 = 18
7 X 3 = 21
8 X 3 = 24
9 X 3 = 27
10 X 3 = 30
11 X 3 = 33
12 X 3 = 36

0 X 4 = 0
1 X 4 = 4
2 X 4 = 8
3 X 4 = 12
4 X 4 = 16
5 X 4 = 20
6 X 4 = 24
7 X 4 = 28
8 X 4 = 32
9 X 4 = 36
10 X 4 = 40
11 X 4 = 44
12 X 4 = 48

0 X 5 = 0
1 X 5 = 5
2 X 5 = 10
3 X 5 = 15
4 X 5 = 20
5 X 5 = 25
6 X 5 = 30
7 X 5 = 35
8 X 5 = 40
9 X 5 = 45
10 X 5 = 50
11 X 5 = 55
12 X 5 = 60

0 X 6 = 0
1 X 6 = 6
2 X 6 = 12
3 X 6 = 18
4 X 6 = 24
5 X 6 = 30
6 X 6 = 36
7 X 6 = 42
8 X 6 = 48
9 X 6 = 54
10 X 6 = 60
11 X 6 = 66
12 X 6 = 72

0 X 7 = 0
1 X 7 = 7
2 X 7 = 14
3 X 7 = 21
4 X 7 = 28
5 X 7 = 35
6 X 7 = 42
7 X 7 = 49
8 X 7 = 56
9 X 7 = 63
10 X 7 = 70
11 X 7 = 77
12 X 7 = 84

0 X 8 = 0
1 X 8 = 8
2 X 8 = 16
3 X 8 = 24
4 X 8 = 32
5 X 8 = 40
6 X 8 = 48
7 X 8 = 56
8 X 8 = 64
9 X 8 = 72
10 X 8 = 80
11 X 8 = 88
12 X 8 = 96

0 X 9 = 0
1 X 9 = 9
2 X 9 = 18
3 X 9 = 27
4 X 9 = 36
5 X 9 = 45
6 X 9 = 54
7 X 9 = 63
8 X 9 = 72
9 X 9 = 81
10 X 9 = 90
11 X 9 = 99
12 X 9 = 108

0 X 10 = 0
1 X 10 = 10
2 X 10 = 20
3 X 10 = 30
4 X 10 = 40
5 X 10 = 50
6 X 10 = 60
7 X 10 = 70
8 X 10 = 80
9 X 10 = 90
10 X 10 = 100
11 X 10 = 110
12 X 10 = 120

0 X 11 = 0
1 X 11 = 11
2 X 11 = 22
3 X 11 = 33
4 X 11 = 44
5 X 11 = 55
6 X 11 = 66
7 X 11 = 77
8 X 11 = 88
9 X 11 = 99
10 X 11 = 110
11 X 11 = 121
12 X 11 = 132

0 X 12 = 0
1 X 12 = 12
2 X 12 = 24
3 X 12 = 36
4 X 12 = 48
5 X 12 = 60
6 X 12 = 72
7 X 12 = 84
8 X 12 = 96
9 X 12 = 108
10 X 12 = 120
11 X 12 = 132
12 X 12 = 144