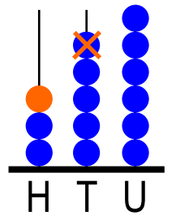
.CG Maths.

KS2 Year 3 Maths
Cheat Sheet (V.1.2)

Counting in 4s: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48...
Counting in 8s: 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96...
Counting in 50s: 50, 100, 150, 200, 250, 350, 400, 450, 500...
Counting in 100s: 100, 200, 300, 400, 500, 600, 700, 800...

256 + 100 - 10 = 346



2 hundreds add 1 hundred is 3 hundreds
5 tens subtract 1 ten is 4 tens
6 units is still 6 units

Largest to Smallest: the number with the most digits before the decimal place is always the largest. Compare the thousands, hundreds, tens then units (in this order of priority).

1000 999 919 199 191 119
1st 2nd 3rd 4th 5th 6th

1 thousand is 10 hundreds so is worth more than 9 hundreds. 9 hundreds are worth more than 1 hundred. 9 tens are worth more than 1 ten. 9 units are worth more than 1 unit.

100: One-hundred
101: One-hundred and one
102: One-hundred and two
110: One-hundred and ten
115: One-hundred and fifteen
256: Two-hundred and fifty-six
503: Five-hundred and three
800: Eight-hundred
999: Nine-hundred and ninety-nine
1000: One-thousand

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 234
+567
 801
 1 1
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4 units add 7 units is 1 ten and 1 unit. 3 tens add 6 tens add 1 ten is 1 hundred and 0 tens. 2 hundreds add 5 hundreds add 1 hundred is 8 hundreds

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  4 13 1
  5 3 3
- 4 5 6
    8 7
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We can't subtract 6 units from 3 units. Convert 1 of the 4 tens into 10 units. 13 units subtract 6 units is 7 units.
We can't subtract 5 tens from 3 tens. Convert 1 of the 5 hundreds into 10 tens. 13 tens subtract 5 tens is 8 tens.
4 hundreds subtract 4 hundreds is 0 hundreds.

Estimation: round numbers to the nearest ten or hundred to get a rough answer (e.g. 32 + 69 is about 30 + 70 which is 100 so 32 + 69 will be about 100).
Checking: use reverse operation to check an answer (e.g. 18 - 6 = 12 is correct as 12 + 6 = 18)

x	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
8	8	16	24	32	40	48	56	64	72	80	88	96
10	10	20	30	40	50	60	70	80	90	100	110	120

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 34
x 8
272
2 3
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34 x 8 = 30 x 8 + 4 x 8
4 units x 8 is 3 tens and 2 units (4 x 8 = 32). 3 tens x 8 is 2 hundreds and 4 tens, but there are already 3 tens so 4 tens add 3 tens is 7 tens.

5 ÷ 3 = 1 remainder 2 (the 5, 1 and 2 represent 50, 10 and 20 as they are placed in the tens column so 50 ÷ 3 = 10 remainder 20). The remainder of 2 (tens) is carried onto the units column (converted into 20 units). 21 ÷ 3 = 7

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 1 7
3|5 2 1
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4 x 12 x 5 = 48 x 5... (hard)
4 x 5 x 12 = 20 x 12 (easier)
2 x 10 x 12 = 2 x 120 = 240

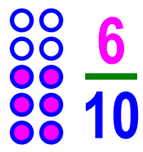
Remainder: what is left over when dividing (e.g. 17 ÷ 5 = 3 remainder 2 as only 3 lots of 5 can be subtracted from 17 and the 2 is left over).

+ Add +
'What is the sum of...'
'What is the total of...'
'How many... altogether'
'... increase by...'

- Subtract -
'What is the difference...'
'How many are left?'
'How much more...'
'... decrease by...'

x Multiply x
'... times larger than...'
'... lots of...'
'Double/triple...'
'How many... altogether'

÷ Divide ÷
'... shared equally between...'
'How many... go into... '
'Find a quarter/half of...'
'How much per/does each...'



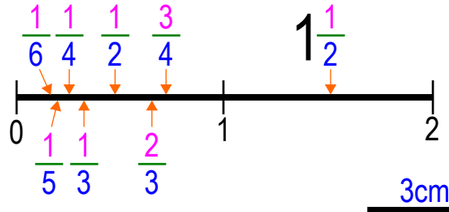
$\frac{6}{10}$ 6 out of 10 | 6 tenths | 6 over 10 | 6 ÷ 10

Equivalent to

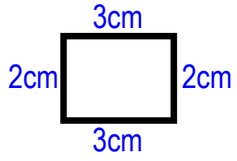
$\frac{3}{5}$ 3 out of 5 | 3 fifths | 3 over 5 | 3 ÷ 5

$\frac{2}{7} + \frac{5}{7} = \frac{2+5}{7} = \frac{7}{7} = 1$

$\frac{3}{5} - \frac{1}{5} = \frac{3-1}{5} = \frac{2}{5}$



Perimeter: total distance around the outside of a 2D shape (add all the lengths of the sides together). (e.g. perimeter of 10cm as 3 + 2 + 3 + 2 = 10).



Change: money given - total cost = change (e.g. if you bought an apple for 25p and a banana for 20p, How much change would be had if you gave 50p? 25p + 20p = 45p. 50p - 45p = 5p change.

Roman Numerals
I (1)
II (2)
III (3)
IV (4)
V (5)
VI (6)
VII (7)
VIII (8)
IX (9)
X (10)
XI (11)
XII (12)

12-hour time		24-hour time
12am		00:00
11:30am		11:30
12pm		12:00
1pm	+12	13:00
3pm	+12	15:00
11:59pm	+12	23:59

Morning: 00:01 to 11:59 **Noon:** 12:00
Afternoon 12:01 to 23:59 **Midnight:** 00:00

Months (days)
Jan (31)
Feb (28/29)
Mar (31)
Apr (30)
May (31)
Jun (30)
Jul (31)
Aug (30)
Sep (30)
Oct (31)
Nov (30)
Dec (31)

60 seconds in a minute. 60 minutes in an hour. 24 hours in a day. 7 days in a week. 12 months in a year. 365 days in a year (366 for leap year, 1 day is added to February every 4 years).

14:52 + 15 minutes = 15:07

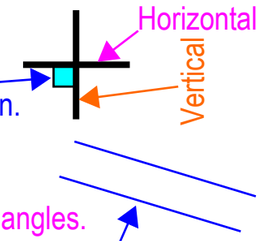
52 + 15 = 67 minutes. Convert 60 of the minutes into an hour leaving 7 minutes left over. Alternatively, add 8 minutes to get to 15:00 then add another 7 minutes.

00:30 - 50 minutes = 23:40

Convert 1 hour into 60 minutes giving 90 minutes in total (23:90). 1 hour before 00 is 23. 90 - 50 = 40. Alternatively, subtract 30 minutes to get to 00:00 then subtract another 20.

1kg = 1000g. 1m = 100cm. 1cm = 10mm

Angles: rotation between two lines
Right angles: 2 make a straight line or half a turn. 3 make three quarters of a turn.
Acute angle: smaller than a right angle.
Obtuse angle: larger than a right angle.
Perpendicular: lines which meet at right angles.
Parallel: lines which will never meet if they are extended. Going in the same direction.



Symmetrical: identical on both sides of a straight line.

Bar Chart: Height of the bar is the number (be careful of the scale).