

Maths, Year 4, Summer 2



What I will know by the end of the Autumn 1 term



Arithmetic 1

- Use 'one add negative one equals zero' ($1 + -1 = 0$) with tricky addition and subtraction
eg. $3 + -2 = 1$ and $4 - -2 = 6$.
- Use a grid to multiply two 2-digit whole numbers ($TU \times TU$), eg. $45 \times 23 = 1035$.
- Use a grid for long division, dividing a 3-digit whole number by a 1-digit whole number ($HTU \div U$) using both remainders and fractions, eg. $727 \div 6 = 121\frac{1}{6}$.

Geometry

- Use a protractor to measure acute and obtuse angles in degrees.
- Use the inside and outside protractors to draw specified acute and obtuse angles with centre of rotation C.

Data & Measure

- Use ratio to convert between pounds and euros, miles and km, and vice versa, with quantities to two decimal places.
- Use ratio to convert between seconds, minutes and hours

Arithmetic 2

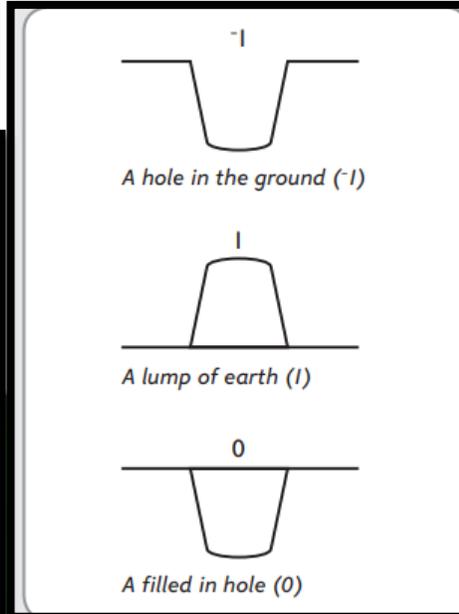
- Solve word problems using the four operations, fractions of quantities, percentages of quantities and the sum of two products, e.g. $\frac{3}{4}$ of 12 metres, 5.3% of 640, $3 \times 23 + 2 \times 35$.
- Use the symbol \approx for 'approximately equal to' (nearly equal to)
- Round an answer with two decimal places to the nearest one decimal place, e.g. $33.92 \approx 33.9$.

Reasoning

- For algebraic expressions using the symbols x and y , add and subtract terms, working from left to right, to write an expression with Same Value: Different Appearance,

Multiplication and Division Facts

| x | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 1 | 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 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |



Activities to try at home & Useful Links:

<https://www.bbc.co.uk/bitesize/topics/zkfydc/articles/zcrmqtz#zpbw6rd>

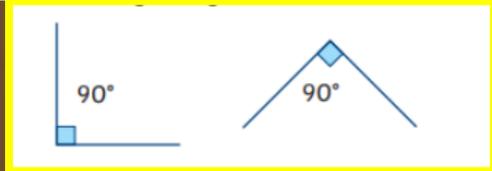
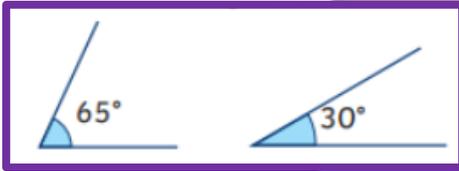
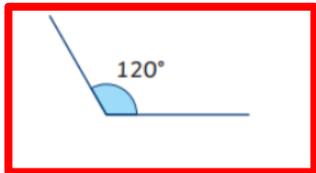
<https://www.purplemash.com/#tab/home/maths>

<https://app.mymaths.co.uk>

<https://play.trockstars.com/trs/online/play/home>

Useful Vocabulary

| | |
|----------------------|--|
| Convert | The process of changing the value of one form to another for example kilometres to miles. |
| Acute | An angle smaller than 90°. |
| Obtuse | An angle bigger than 90° but smaller than 180°. |
| Right angle | An angle that is exactly 90°. |
| Algebra | An area of mathematics where numbers and quantities called variables are represented by letters and symbols. |
| Approximately | To estimate a number, amount or total. Often, rounding it off to the nearest 10 or 100. |



Rounding and estimates

We can use estimates when calculating.

They are about £3 and £7 so will be about £10 in total.

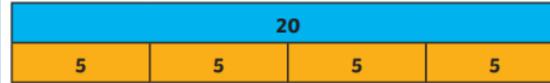


They are about £4 and £3 so will be about £7 in total. I will have about £3 left.

Fractions of Quantities

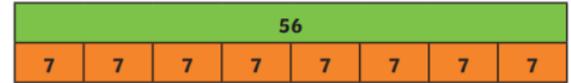
To find a fraction of a number, divide by the denominator and multiply by numerator.

To find quarters of 20:



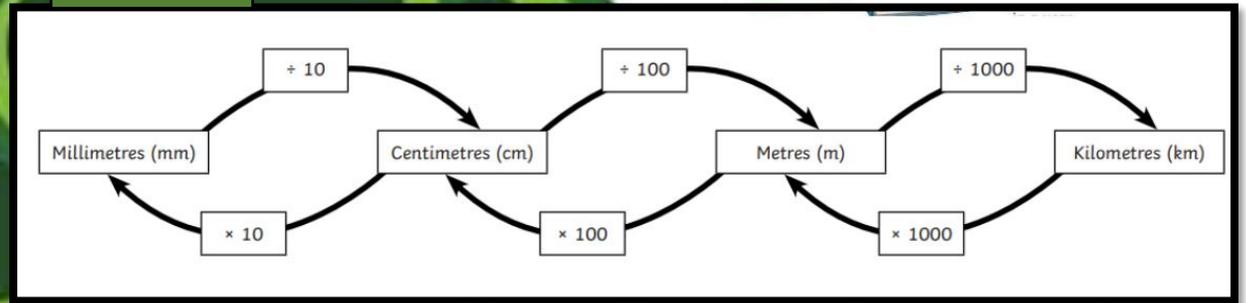
$$\frac{1}{4} \text{ of } 20 = 5 \quad \frac{2}{4} \text{ of } 20 = 10 \quad \frac{3}{4} \text{ of } 20 = 15 \quad \frac{4}{4} \text{ of } 20 = 20$$

To find eighths of 56:



$$\begin{aligned} \frac{1}{8} \text{ of } 56 &= 7 & \frac{2}{8} \text{ of } 56 &= 14 & \frac{3}{8} \text{ of } 56 &= 21 & \frac{4}{8} \text{ of } 56 &= 28 \\ \frac{5}{8} \text{ of } 56 &= 35 & \frac{6}{8} \text{ of } 56 &= 42 & \frac{7}{8} \text{ of } 56 &= 49 & \frac{8}{8} \text{ of } 56 &= 56 \end{aligned}$$

Convert



| HM | TM | M | HTh | TTh | Th | H | T | O | t | h | th |
|------------------|--------------|-----------|-------------------|---------------|-----------|----------|------|------|--------|------------|-------------|
| Hundred Millions | Ten Millions | Millions | Hundred Thousands | Ten Thousands | Thousands | Hundreds | Tens | Ones | Tenths | Hundredths | Thousandths |
| 100 000 000 | 10 000 000 | 1 000 000 | 100 000 | 10 000 | 1 000 | 100 | 10 | 1 | 0.1 | 0.01 | 0.001 |

Place Value

Rounding and estimates