

SUBJECT: Maths @whisto_maths

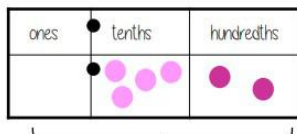
UNIT: Integers and Decimals



Decimals

We say "nought point five two"

Five tenths and two hundredths



$$0 \text{ ones, } 5 \text{ tenths and } 2 \text{ hundredths}$$

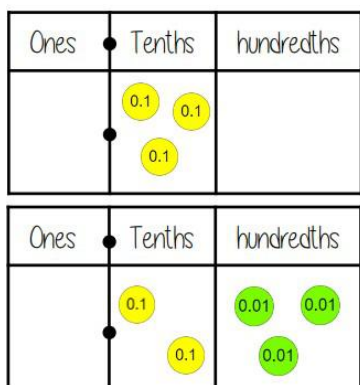
$$0 + 0.1 + 0.1 + 0.1 + 0.1 + 0.1 + 0.01 + 0.01$$

$$= 0 + 0.5 + 0.02$$

$$= 0.52$$

Comparing decimals

Which the largest of 0.3 and 0.23?



$$0.3 > 0.23$$

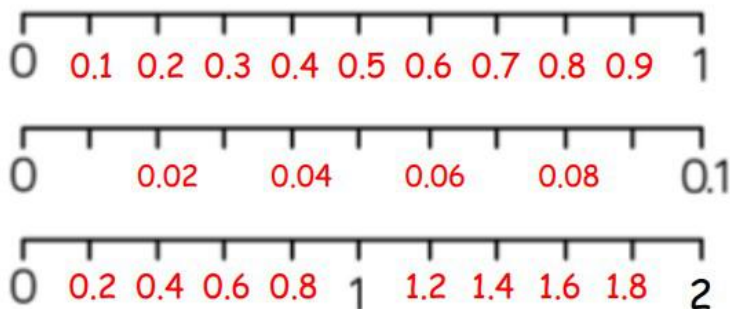
"There are more counters in the furthest column to the left"

0.30
0.23

Comparing the values both with the same number of decimal places is another way to compare the number of tenths and hundredths

Decimal intervals on a number line

One whole split into 10 parts makes tenths = 0.1
One tenth split into 10 parts makes hundredths = 0.01



Round to 1 significant figure

370 to 1 significant figure is 400

37 to 1 significant figure is 40

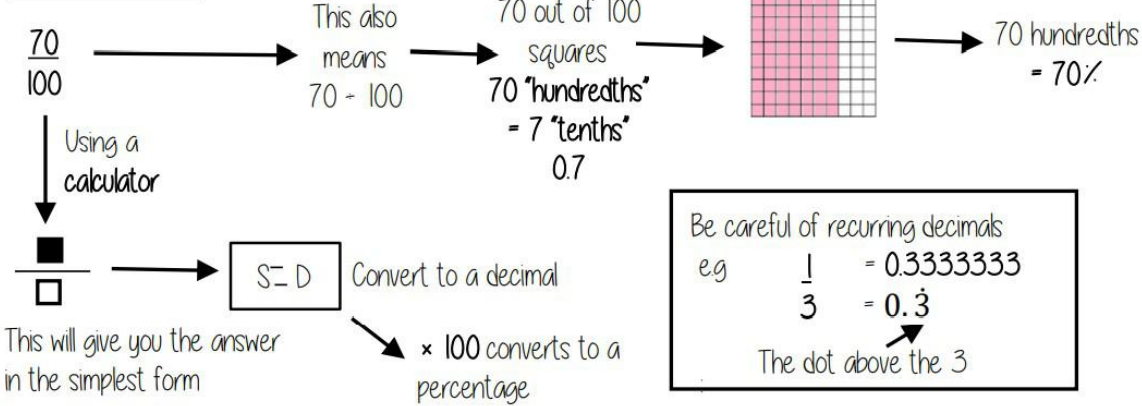
3.7 to 1 significant figure is 4

0.37 to 1 significant figure is 0.4

0.00000037 to 1 significant figure is 0.0000004

Round to the first non zero number

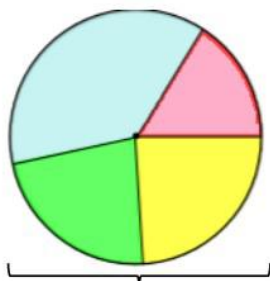
Convert FDP



Keywords

- Fraction: how many parts of a whole we have
- Decimal: a number with a decimal point used to separate ones, tenths, hundredths etc.
- Percentage: a proportion of a whole represented as a number between 0 and 100
- Place value: the numerical value that a digit has decided by its position in the number
- Placeholder: a number that occupies a position to give value
- Interval: a range between two numbers
- Tenth: one whole split into 10 equal parts
- Hundredth: one whole split into 100 equal parts
- Sector: a part of a circle between two radius (often referred to as looking like a piece of pie)
- Recurring: a decimal that repeats in a given pattern

Simple pie charts

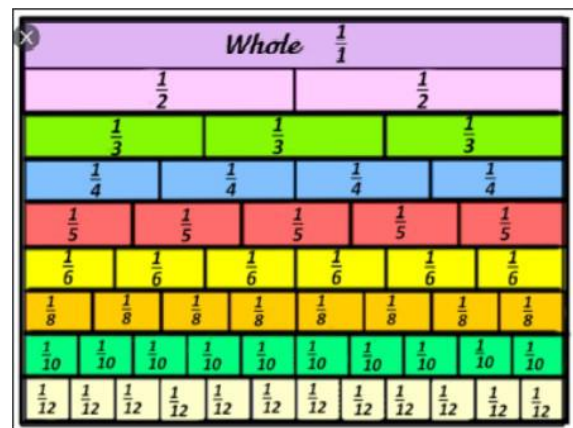


- Split into 10 parts
- 10% = 36°
- Split into 2 parts
= 50% = 180°
- Split into 5 parts
= 20% = 72°

A pie chart has 360° so all FDP calculations are out of 360

Equivalent fractions

Represent equivalence with fraction walls

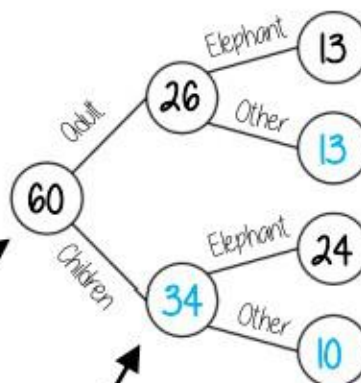




Frequency trees

60 people visited the zoo one Saturday morning
 26 of them were adults. 13 of the adult's favourite animal was an elephant. 24 of the children's favourite animal was an elephant.

The overall total '60 people'



A frequency tree is made up from part-whole models. One piece of information leads to another

Probabilities or statements can be taken from the completed trees
 e.g. 34 children visited the zoo

Tables and timetables

Distance tables

London			
211	Cardiff		
556	493	Glasgow	
518	392		Belfast

This shows the distance between Glasgow and London. It is where their row and column intersects

Bus/ Train timetables

Harton	1005	1045	1130
Bridge	1024	1106	1147
Aville	1051	1133	1205
Ware	1117	1202	1233

Each column represents a journey, each row represents the time the 'bus' arrives at that location

TIME CALCULATIONS – use a number line

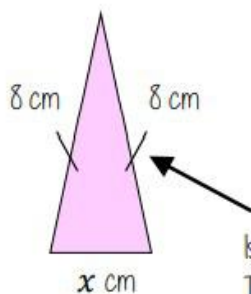
Two-way tables

	H	T
H	HH	HT
T	TH	TT

Where rows and columns intersect is the outcome of that action

Solve problems with perimeter

Perimeter is the length around the outside of a polygon



Isosceles Triangle notation

The triangle has a perimeter of 25cm. Find the length of x

$$8\text{cm} + 8\text{cm} + x\text{cm} = 25\text{cm}$$

$$16\text{cm} + x\text{cm} = 25\text{cm}$$

$$\underline{x\text{cm} = 9\text{cm}}$$