## year 7 －place mallee and prooption ＠whisto＿maths <br> Ordering integers and decimals

## What do I need to be able to do？

By the end of this unit you should be able to：
－Understand place value and the number system incuding decimals
Understand and use place value for decimals， integers and measures of any size
Order number and use a number line for positive and negative integers，fractions and decimals；
use the symbols $=, \neq, \leq, \geq$
Work with terminating decimals and their corresponding fractions
－Round numbers to an appropriate accuracy Describe，interpret and compare data distributions using the median and range

## Keywords

Approximate：To estimate a number，amount or total often using rounding of numbers to make them easier to calculate with
Integer：a whole number that is positive or negative
I Interval：between two points or values
｜Median：a measure of central tendency（middle，average）found by putting all the data values in order and finding the middle
｜\｜value of the list．
｜｜Negative：any number less than zero，written with a minus sign
｜I Place holder：We use 0 as a place holder to show that there are none of a particular place in a number
I Place value：The value of a digit depending on its place in a number．In our decimal number system，each place is 10 times
I I bigger than the place to its right
I Range：The difference between the largest and smallest numbers in a set
Significant figure：A digit that gives meaning to a number．The most significant digit（figure）in an integer is the number on the left．The most significant digit in a decimal fraction is the first non－zero number after the decimal point

## Inteeer Pacace Vale



Three billon，one hundred and forty eight millon，
thirty three thousand and twenty nine
I bilion I，000，000， 000
I million $1.000,000$

## htenat on a a number ine

## 

 1 ニニニニニニニニニニニニニニニニニニニニニニニニニニニニニニニニニ1 Rounding to the nearest power of ten If the number is hafway between we＂round up＂



Example $1 \quad$ Median：put the in order $\begin{array}{llllll}3 & 4 & 8 & 9 & 12\end{array}$
｜Example 2 Median：put the in order
$\begin{array}{lll}150 & 154 & 148 \\ 137 & 160 & 158\end{array}$ There are 2 middle numbers Find the midpoint


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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＂ the same number of decimal places is another way to

$$
\begin{aligned}
& \text { compare the number of tenths } \\
& \text { and hundredths }
\end{aligned}
$$

I＜less than
$1>$ greater than ${ }^{\text {Two and a half million }=2500000}$
＝equal to
｜$\neq$ not equal to six thousand and eighty $<68000$

## Decimals

 hundrecths


## YEAR 7 - PLACE VALUE AND PROPORTION... FDP equivalence

## What do I need to be able to do?

By the end of this unit you should be able to:

- Convert fluently between fractions, decimals $\varepsilon$ percentages


## Keywords

Fraction: how many parts of a whole we have
1| Decimal: a number with a decimal point used to separate ones, tenths, hundreaths etc.

1) Percentage: a proportion of a whole represented as a number between 0 and 100

I| Place value: the numerical value that a digt has decided by its postion in the number
II Placeholder: a number that occupies a postion to give value
II Interval a range between two numbers
II Tenth: one whole spit into 10 equal parts
II Hundreath: one whole split into 100 equal parts
II Sector: a part of a circle between two radius (often referred to as looking like a piece of pie)
II Recurring: a decimal that repeats in a given pattern

## Tenths and hundredths




0 ones, 5 tenth and 2 hundredths
$0+0.1+0.1+0.1+0.1+0.1+0.01+0.01$ $=0+0.5+0.02$ $=0.52$

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One tenth - split into 10 equal parts

One hundredth $=\frac{1}{100}=0.01$

I



The denominator is represented by EQUaLLY
sized parts - this is spiti into quarters


One whole split into 18 equal parts 18 is the denominator 6 is the numerator


