## Ordering Fractions, Decimals and Percentages

LO: 2ba2 order FDP's by using our converting knowledge.

- Starter:

Fill out the table of converting between FDP

| Fraction | Decimal | Percentage |
| :---: | :---: | :---: |
| $\mathbf{1 / 2}$ |  | $\square$ |
|  | $\mathbf{0 . 7 5}$ |  |
|  |  | $\mathbf{2 0 \%}$ |
| $\mathbf{1 / 8}$ |  |  |
|  | $\mathbf{0 . 9 3}$ | $\square$ |
| $\mathbf{1 / 5 0}$ |  | $4 \%$ |
|  |  |  |

## Ordering Fractions

What do you think we need to do? How could we do it? (10 seconds)

## Top tip:

1) Convert everything into decimals
2) Order the decimals
3) Re-write the original

## Ordering Decimals - Recap

It is easier to put decimals in order if we have the same number of digits after the decimal point.

### 0.120 .3020 .50 .06

| Step 1 | Look at the decimals to find which one has the most number of digits after the decimal point. | 0.12 | 0.302 | 0.5 | 0.06 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 2 | Add zeros to the other decimals so that they all have this number of digits after the decimal point. | 0.120 | 0.302 | 0.500 | 0.060 |
| Step 3 | Put the numbers in order of size. | 0.500 | 0.302 | 0.120 | 0.060 |

## Quick Practice Questions!

Put these decimals in order from highest to lowest:


## Challenge:

Can you order to following measurements in ascending order. 121 cm
0.46 m

79 mm
1.42 m
1.35 km

## Answers

Put these decimals in order from highest to lowest:


## Ordering FDP

We have now practiced converting between FDP and also we have had a recap on ordering decimals.

Now we can order Fractions, Decimals and Percentages.

## Ordering FDP:

$$
87 \% \quad 0.871 \quad 1 / 2 \quad 2 / 3 \quad 0.57
$$

## Step 1 - turn all the figures into decimals.

Step 2 - put the decimals in order from smallest to largest.

Step 3 - turn the figures back to their original form.

NOTE: To turn a percentage into a decimal divide by 100 and to turn a fraction into a decimal divide the numerator by the denominator.
0.87
0.871
0.5
0.67
0.57
0.5
0.57
0.67
0.87
0.871
$1 / 2$
0.57
2/3
87\%
0.871

## Class example - Your turn

$$
56 \% \quad 3 / 4 \quad 0.871 \quad 23 \% \quad 6 / 7
$$

Step 1 - turn all the figures into decimals.
Step 2 - put the decimals in order from smallest to largest.
Step 3 - turn the figures back to their original form.
0.56
0.75
0.871
0.23
0.86
0.23
0.56
0.75
0.86
0.871
23\%
56\%
3/4
6/7
0.871

Activity: Put these numbers into lowest to highest order.

| 1) | 0.22 | $1 / 10$ | 0.34 | $2 / 3$ | 0.903 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 ) | $1 / 10$ | 0.507 | 0.320 | $7 / 9$ | 0.12 |
| 3$)$ | $1 / 2$ | $45 \%$ | 0.9 | $4 / 10$ | 0.3 |
| 4$)$ | 0.67 | $61 \%$ | $6 / 10$ | 0.067 | 0.601 |
| 5$)$ | 1.45 | $142 \%$ | $3 / 2$ | $107 \%$ | 1.024 |
| 6 ) | 1.92 | $7 / 3$ | $193 \%$ | 1.899 | $5 / 2$ |
| Challenge <br> 1: | 0.003 | $3 / 100$ | $0.03 \%$ | $3 / 10$ | $0.303 \%$ |
| Challenge <br> 2: | $7 / 4$ | $74 \%$ | 7.4 | $4 / 7$ | 70.4 |

Answers (Lowest to Highest)

| 1) | $1 / 10$ | 0.22 | 0.34 | $2 / 3$ | 0.903 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 ) | $1 / 10$ | 0.12 | 0.320 | 0.507 | $7 / 9$ |
| 3$)$ | 0.3 | $4 / 10$ | $45 \%$ | $1 / 2$ | 0.9 |
| 4$)$ | 0.067 | $6 / 10$ | 0.601 | $61 \%$ | 0.67 |
| 5$)$ | 1.024 | $107 \%$ | $142 \%$ | 1.45 | $3 / 2$ |
| 6 ) | 1.899 | 1.92 | $193 \%$ | $7 / 3$ | $5 / 2$ |
| Challenge <br> 1: | $0.03 \%$ | $0.303 \%$ | 0.003 | $3 / 100$ | $3 / 10$ |
| Challenge <br> 2: | $4 / 7$ | $74 \%$ | $7 / 4$ | 7.4 | 70.4 |

## Plenary

Convert your scores for today's lesson into a Fraction, Decimal and a Percentage.
(Out of how many questions you attempted)

## Verbal Feedback

|  | $75 \%+$ <br> $0.75+$ <br> $3 / 4+$ | I can confidently convert Fractions, <br> Decimals and Percentages and I am able <br> to order them. |
| :---: | :---: | :---: |
| $50-75 \%$ <br> $0.5-0.75$ <br> $1 / 2-3 / 4$ | I need practice on converting Fractions, <br> Decimals and Percentages which I can use to <br> order them |  |
|  | $50 \%-$ <br> $0.5-$ <br> $1 / 2-$ | I need to look back at my notes on converting <br> between Fractions, Decimals and Percentages |

