## FRACTIONS

WEEK 1

## Have a go!

We know you can do
it.

- ORDERING FRACTIONS
- SAME DENOMINATOR


## Comparing Fractions With Same Denominators

Ron ate two fifths of a chocolate bar and Pinky ate 3 fifths of the same sized chocolate bar. Who ate more chocolate?

Let's model it:


Clearly we can see that Pinky ate more chololate than Ron.

Hence $\frac{3}{5}$ is greater than $\frac{2}{5}$
OR $\frac{3}{5}>\frac{2}{5}$

Conclusion: When we compare two fractions with same denominators, fraction with greater numerator is greater.

## 首 $\frac{5}{8}<\frac{7}{8}$ 릴

Ordered from least to greatest:
$\begin{array}{lll}\frac{2}{10} & \frac{5}{10} & \frac{9}{10}\end{array}$

## L.O. Can I order fractions?

- Order these fractions from smallest to biggest.
-1.3/4 $\quad 1 / 4 \quad 4 / 4 \quad 2 / 4$
-2.5/10 $\quad 2 / 10 \quad 7 / 10 \quad 4 / 10$
-3.7/8 $\quad 1 / 8 \quad 4 / 8 \quad 2 / 8$
-4. $3 / 6 \quad 2 / 6 \quad 5 / 6 \quad 1 / 6$
-5. $4 / 12 \quad 1 / 12 \quad 9 / 12 \quad 7 / 12$
-6. $5 / 5 \quad 2 / 5 \quad 4 / 5 \quad 1 / 5$
-1. $\begin{array}{lllll}1 / 4 & 2 / 4 & 3 / 4 & 4 / 4\end{array}$
-2. $2 / 10 \quad 4 / 10 \quad 5 / 10 \quad 7 / 10$
-3.1/8 $\quad 2 / 8 \quad 4 / 8 \quad 7 / 8$
-4. $1 / 6 \quad 2 / 6 \quad 3 / 6 \quad 5 / 6$
-5.1/12 $\quad 4 / 12 \quad 7 / 12 \quad 9 / 12$
-6. $1 / 5 \quad 2 / 5 \quad 4 / 5 \quad 5 / 5$

Now try this. Order from smallest to biggest.

$2 / 3$

$1 / 3$

$1 / 6$

And this.


9/10


1/10


1/4
-1. $1 / 6 \quad 1 / 3 \quad 2 / 3$
ANSWERS
-2. $1 / 10 \quad 1 / 4 \quad 9 / 10$

REMEMBER; The smaller the denominator the bigger the fraction.

- You are hungry. Would you prefer to have $1 / 2$ a pizza or a $1 / 4$ of a pizza?
- Half is bigger than a quarter but 2 is a smaller number than 4.



## Comparing and

 Ordering Fractions
## Year 3 - Number - fractions



## L.O. Can I order fractions from smallest to biggest?

| - 1. $1 / 9$ | $1 / 3$ | $1 / 8$ | $1 / 5$ |
| :---: | :---: | :---: | :---: | :---: |
| - 2. $1 / 10$ | $1 / 6$ | $1 / 7$ | $1 / 2$ |
| - 3. $1 / 5$ | $1 / 3$ | $2 / 3$ | $3 / 5$ |
| - 4. $1 / 8$ | $1 / 6$ | $3 / 8$ | $4 / 6$ |
| - 5. $4 / 10$ | $1 / 10$ | $9 / 10$ | $3 / 10$ |

- 5. $4 / 10$

1/10
9/10
3/10
-I. $1 / 3 \quad 1 / 5 \quad 1 / 8 \quad 1 / 9$
$\begin{array}{llll}-2.1 / 2 & 1 / 6 & 1 / 7 & 1 / 10\end{array}$
ANSWERS
-3. 1/5
3/5
$1 / 3$
2/3
-4. $1 / 8 \quad 3 / 8 \quad 1 / 6 \quad 4 / 6$
-5. $1 / 10 \quad 3 / 10 \quad 4 / 10 \quad 9 / 10$

## L.O. Can I solve reasoning problems?



What fraction of each shape is shaded?


Order them from smallest to largest

What are these fractions?


Which is biggest? Explain how you know.

What fraction of each shape is shaded?


Order them from smallest to largest smaller the fraction.

What are these fractions? $\quad 3 / 4$
6/7

## ANSWERS

(7) The biggest is $6 / 7$

5 What fraction of each shape is shaded? $1 / 8 \quad 1 / 5 \quad 1 / 4$

What fraction of each shape is shaded? 1/6 2/6 4/6 5/6

Day 3

- Fractions
- Bigger or Smaller
$\qquad$

$$
\text { Compare the shaded fractions in the shapes by using }>,<\text { or }=\text {. }
$$

## L.O. Can I compare fractions?



## L.O. Can I find the biggest fraction? Circle the biggest fraction.



## ANSWERS

$2 / 5$They are the same




DAY 4
-Equivalent Fractions

Fraction Wall


| imot |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ |  |  | $\frac{1}{2}$ |  |  |
|  | $\frac{1}{3}$ | $\frac{1}{3}$ |  |  | $\frac{1}{3}$ |
|  | $\frac{7}{\square}$ | $\stackrel{\square}{4}$ |  | $\frac{1}{4}$ | $\frac{1}{4}$ |
|  |  |  |  |  |  |
| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | \% | $\frac{1}{6}$ |
| $\frac{1}{\frac{1}{8}}$ | $\pm 1{ }^{\frac{1}{8}}$ | $\frac{1}{8}$ | $\frac{1}{\square}$ | $\left.1 \frac{1}{5} \right\rvert\, \frac{1}{8}$ | + $1+\frac{1}{8}$ |
| $\frac{1}{10}$ | $\frac{1}{10} \frac{1}{10}$ | $1 \frac{1}{10}$ | $\frac{1}{10} \frac{1}{10}$ | $\frac{1}{10} \frac{1}{10}$ | $\frac{1}{10} \frac{1}{10}$ |
| $\underline{1}$ | $\frac{1}{12}\left\|\frac{1}{12}\right\| \frac{1}{12}$ | $\frac{1}{12} \frac{1}{12}$ | $\frac{1}{12} / \frac{1}{12}$ | $\left.\frac{1}{12}\left\|\frac{1}{12}\right\| \frac{1}{12} \right\rvert\,$ | [172 $\frac{1}{12}$ |

- Look at the Fraction Wall.
- Remember equivalent means the same.


## L.O. Can I find equivalent fractions?

-1. What fractions can you find that are equivalent to $1 / 2$ ?

- 2. What fractions can you find that are equivalent to $1 / 4$ ?
-3. What fractions can you find that are equivalent to 1 ?
- You could have:
-1. $1 / 2 \quad 2 / 4 \quad 3 / 6 \quad 4 / 8 \quad 5 / 10 \quad 6 / 12$


## ANSWERS

- Can you spot a pattern?
-2. $1 / 4 \quad 2 / 8 \quad 3 / 12$
$\begin{array}{lllllll}\text {-3. } 1 & 2 / 2 & 3 / 3 & 4 / 4 & 5 / 5 & 6 / 6 & 7 / 7\end{array}$ $\begin{array}{lll}8 / 8 & 9 / 9 & 10 / 10\end{array}$


## Equivalent Fractions Worksheet

1. Which shape's shaded parts are equivalent to one half? Underline the correct answer.
(a)

(b)

(c)


Equivalent Fractions

| $\frac{1}{4}=\frac{\square}{8}$ | $\frac{1}{2}=\frac{\square}{4}$ |
| :--- | :--- |
| $\frac{4}{6}=\frac{\square}{12}$ | $\frac{2}{3}=\frac{\square}{6}$ |
| $\frac{1}{2}=\frac{\square}{8}$ | $\frac{2}{3}=\frac{\square}{12}$ |
| $\frac{3}{6}=\frac{\square}{12}$ | $\frac{1}{3}=\frac{\square}{6}$ |
| $\frac{3}{4}=\frac{\square}{8}$ | $\frac{5}{6}=\frac{\square}{12}$ |

$$
\text { ANSWERS } \left\lvert\, \begin{array}{ll} 
& \\
\bullet 2 / 8 & 2 / 4 \\
\cdot 8 / 12 & 4 / 6 \\
\cdot 4 / 8 & 8 / 12 \\
\bullet 6 / 12 & 2 / 6 \\
\bullet 6 / 8 & 10 / 12
\end{array}\right.
$$

## Find the equivalent fractions.


s hade the second model exactly the same and determine the equivalent fractions.
1.

$-=-$
2.

$-=-$
3.

$-=-$
4.

$-=-$
5.

-1. $2 / 3=8 / 12$
ANSWERS
-2. $1 / 3=4 / 12$
-3. $1 / 4=3 / 12$
-4. $3 / 4=9 / 12$
-5. $1 / 2=4 / 8$

## DAY 5

## Reasoning problems

$$
8 \pm
$$

## What do you think?

1 Complete the sentences to describe the images.

$\square$ out of $\square$ equal parts are shaded.
$\square$ of the shape is shaded.

## What about this?

## True or False?



## $\frac{1}{3}$ of this shape is shaded.

- 1 part shaded 3 parts shaded
- 1 out of 8 equal parts are shaded
- $4 / 8$ of the shape is shaded or $1 / 2$
- False
- $1 / 4$ of the shape is shaded

Which shape is the odd one out? Can you explain why?


Emily is using bar models to help find fractions equivalent to one half. She divides the bar into two to show a half, then divides each half into equal parts to find an equivalent fraction.


Can you help her write down the equivalent fractions?

Use Emily's strategy to find fractions equivalent to three quarters.

$\square$


Lewis makes a third using his bar model.


Lara says she can make an equivalent fractions to a third, with a denominator of 6. Do you aqree?

## ANSWERS

## Emily's equivalent

 fractions. 1/2 2/4 3/6
## Try this!

(3) Split the number line into eighths. Can you label each division of the number line?


Can you continue the number line up to 2 ? How would you label the fractions larger than one?

## ANSWERS

- The equivalent fractions have been added to the second number line.

Eva has drawn a number line.


Mike says it is incorrect.

Do you agree with Mike?
Explain why.

Use a drawing to explain your thoughts.

$$
\begin{aligned}
& \frac{\text { L.O. Can I solve }}{\text { Reasoning }} \\
& \hline \text { problems? }
\end{aligned}
$$

- Mike is correct.
- Eva has missed out the 1
- There should be a 1 between $3 / 4$ and $11 / 4$


