



**Year 4 Maths 21.05.20**

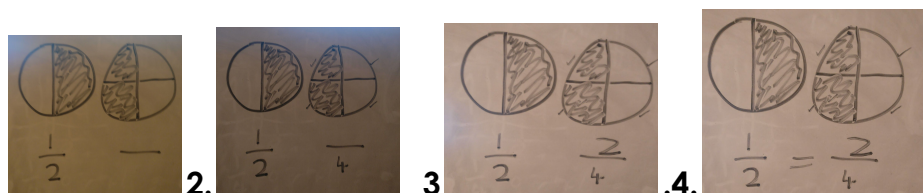
**Steppingstone activity**

**LO: To identify equivalent fractions**

**Success Criteria:**

1. Look at the image
2. Count the number of sections (denominator)
3. Count the shaded sections (numerator)
4. Find an equivalent fraction

**Model**



**Numerator**  
How many equal parts do you have?

**3**

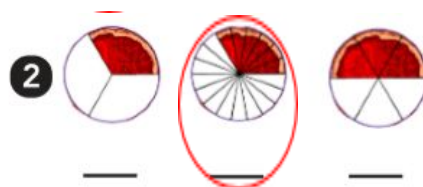
**Denominator**  
How many equal parts is the whole divided into?

**4**

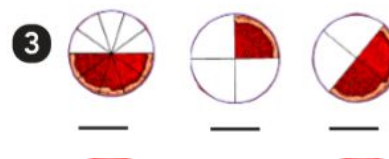
Now you try... In each problem, identify the fraction, then circle the fractions that are equivalent



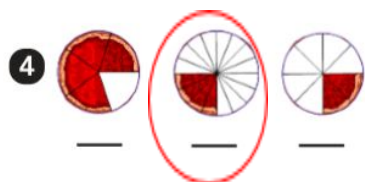
1/2    3/4    2/4



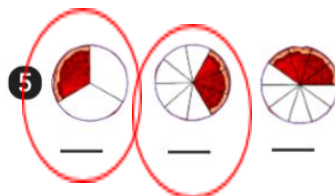
1/3    6/18    3/6



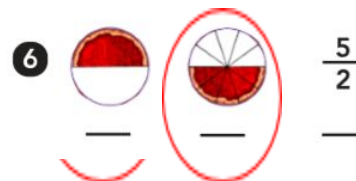
5/10    1/4    2/4



4/5    4/16    2/8



1/3    3/9    4/10



1/2    5/10    5/2

**Lesson 21.05.20**

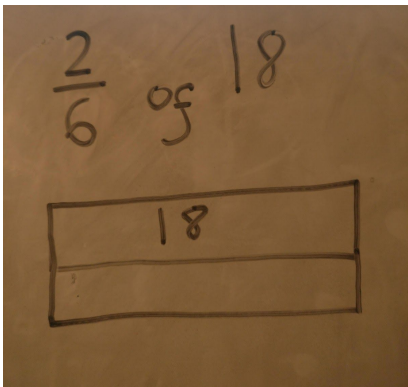
**LO: To find a fraction of a quantity**

**Success Criteria:**

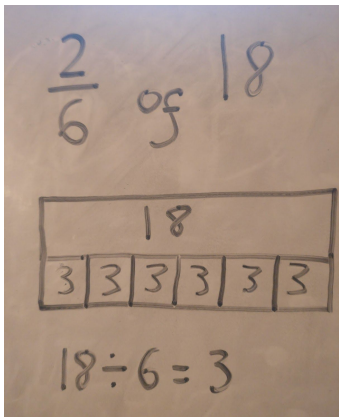
- |   |
|---|
| 1. Make a bar model of you fraction                 |
| 2. Divide the model/whole number by the denominator |
| 3. Multiply by the numerator (Shade the model)      |
| 4. Write your answer                                |

**Model:**

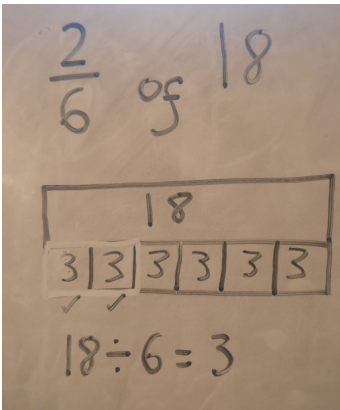
1.



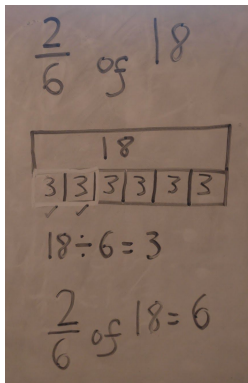
2.

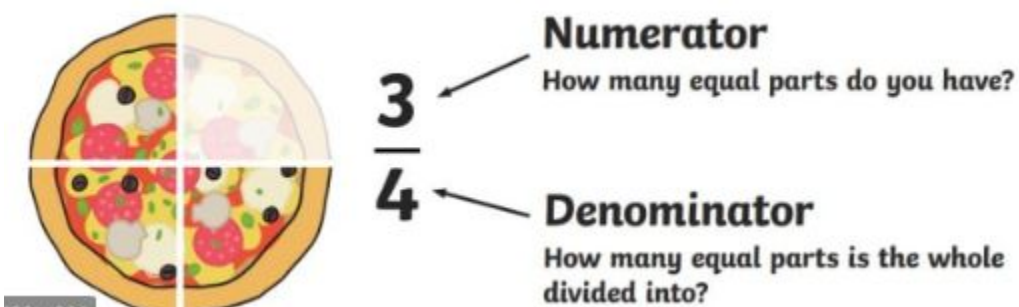


3.



4.





**Task 1 (Equivalent Fractions)**

**Practice: Write the equivalent fraction**

1.  $\frac{1}{3} = \frac{4}{12}$  2.  $\frac{1}{2} = \frac{3}{6}$  3.  $\frac{3}{4} = \frac{6}{8}$  4.  $\frac{5}{12} = \frac{10}{24}$

**Complete the following fractions**

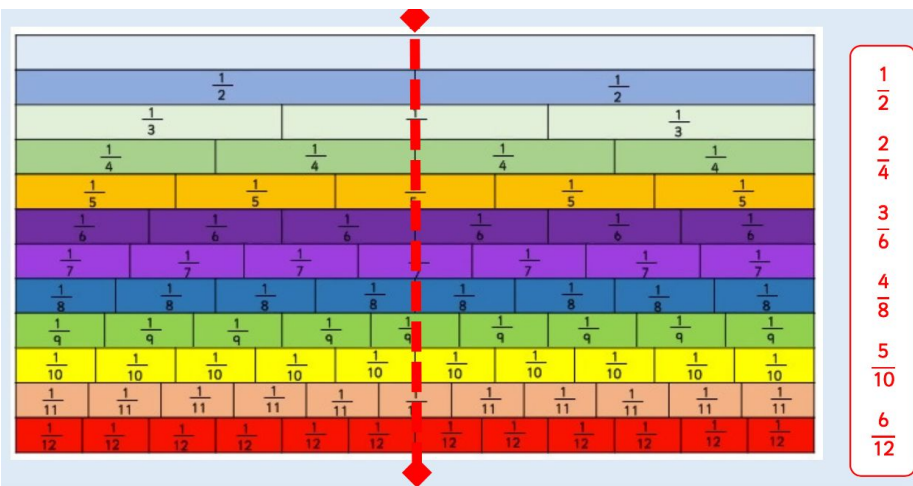
6.

$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \frac{25}{100} = \frac{50}{200}$

5.  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{50}{100} = \frac{100}{200}$

$\frac{1}{3} = \frac{2}{6} = \frac{4}{12} = \frac{8}{24}$

7.



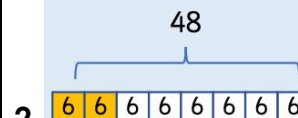
**Task 2 (Fractions of quantities)**

**Practice: Use the bar model to find the fraction of a quantity**

1.



$\frac{2}{8}$  of 48 = 12



2.

$\frac{5}{8}$  of 48 = 30



4.

$\frac{8}{8}$  of 24 = 24



6.

$\frac{2}{3} \times 180 \text{ g} = 120 \text{ g}$

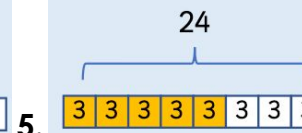
Ty eats  $\frac{2}{3}$  of 180g of chocolate. How much does he have left?

$\frac{3}{8}$  of 48 = 18



3.

$\frac{5}{8}$  of 24 = 15



5.

7.

$$\frac{5}{7} \times 490 \text{ g} = 350 \text{ g}$$

Hannah has 490 ml of water. She spills  $\frac{2}{7}$  of it. How much water does she have left?

### Task 3

## Reasoning

Explain your answers.

9a. Steph and Cian calculated  $\frac{6}{8}$  of 32.



Steph

I just need to double the answer to calculate  $\frac{6}{8}$  of 96.



Cian

The answer is the same as  $\frac{2}{8}$  of 96.

Who is correct? Explain how you know.

9a. **Cian is correct because 96 is three times larger than 32 and the fraction is three times smaller so it will produce the same answer.**

9b. Phoebe is looking at the fractions below.

$$\frac{9}{12} = \frac{15}{20} = \frac{21}{28}$$

The fractions are all equal because they are equivalent to  $\frac{6}{8}$ .



Phoebe

Is she correct? Convince me.

9b. **Phoebe is correct because all three fractions can be simplified to  $\frac{3}{4}$  which is equivalent to  $\frac{6}{8}$ .**

4b. Use your knowledge of equivalent fractions to group the fractions below and find the odd one out.

$$\begin{array}{ccc} \frac{5}{15} & \frac{6}{30} & \frac{4}{12} \\ & \frac{1}{6} & \frac{3}{18} \end{array}$$

Explain the reasons for your groupings.

4b.  **$\frac{5}{15}$  and  $\frac{4}{12}$  are grouped because they are equivalent,  $\frac{1}{6}$  and  $\frac{3}{18}$  are grouped because they are equivalent so  $\frac{6}{30}$  is the odd one out.**



**Task 4****Problem solving**

2. Jofra is solving the calculation below using related facts.

$$\frac{6}{8} \text{ of } 560$$



I can use  $\frac{1}{8}$  of 56 to solve the calculation, as I could then multiply my answer by 6 and then 10.

Select the most suitable related facts that could be used to solve the calculation and explain your choices.

$$\frac{3}{4} \text{ of } 56$$

$$\frac{6}{8} \text{ of } 56$$

$$\frac{3}{4} \text{ of } 560$$

$$\frac{1}{4} \text{ of } 56$$

$$\frac{1}{2} \text{ of } 560$$

Various answers, for example:  $\frac{6}{8}$  of 56 could be used as you could multiply the answer (42) by 10, which would give 420.

Explore the related facts that could be used to solve the following calculation:

$$\frac{4}{6} \text{ of } 240$$

Various answers, for example:  $\frac{2}{3}$  of 24,  $\frac{4}{6}$  of 24,  $\frac{1}{6}$  of 24