



**Year 4 Maths 19.05.20**

**Steppingstone activity**

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

**Success Criteria:**

1. Look at your calculation
2. Draw a bar model
3. Divide your whole number by the denominator
4. Break bar up in to those sections
5. Write answer

**Model**

1.

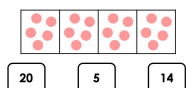
2, 3.

4.

5.

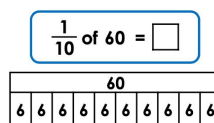
Now you try... Make equivalent fraction of the one below

1. Which is the answer to a quarter?



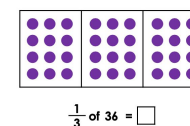
**5**

2.



**6**

3.



**12**

What calculations do these bar models show?

**3 = 8**

**4 = 6**

**5 = 8**

**6 = 5**

**$\frac{1}{2}$  of 16**

**$\frac{1}{4}$  of 24**

**$\frac{1}{10}$  of 80**

**$\frac{1}{3}$  of 15**



**Numerator**  
How many equal parts do you have?  
**3**

**Denominator**  
How many equal parts is the whole divided into?  
**4**

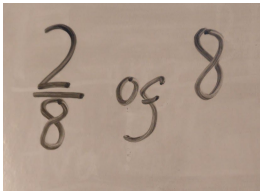
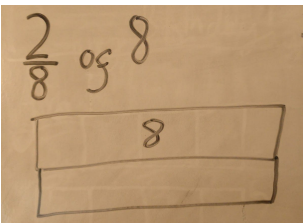
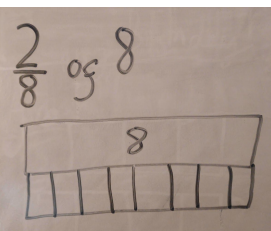
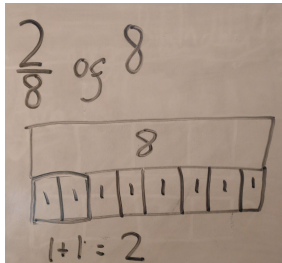
**Lesson 19.05.20**

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

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1. Look at your calculation
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**Model:**

1.  2.  3.  4, 5. 



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

**3**

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

**4**

**Task 1**

**Practice:**

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

**1. If  $\frac{1}{4}$  of 40 is 10 then  $\frac{3}{4}$  of 80 is 60**

If  $\frac{1}{4}$  of 40 =

then  $\frac{3}{4}$  of 80 =

2.  $\frac{3}{5}$  of 35      6.  $\frac{5}{6}$  of 36

3.  $\frac{9}{10}$  of 70      7.  $\frac{2}{3}$  of 36

4.  $\frac{3}{7}$  of 56      8.  $\frac{5}{7}$  of 28

5.  $\frac{5}{8}$  of 72      9.  $\frac{3}{4}$  of 44

2. 21

3. 63

4. 24

5. 45

6. 30

7. 24

8. 20

9. 33

**Task 2**

**Practice: (See if you can make equivalent fractions)**

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

**1. If  $\frac{2}{5}$  of 75 is 30 then  $\frac{4}{5}$  of 150 is 120**

If  $\frac{2}{5}$  of 75 =

then  $\frac{4}{5}$  of 150 =

2.  $\frac{6}{9}$  of 27      6.  $\frac{4}{6}$  of 30

3.  $\frac{3}{8}$  of 80      7.  $\frac{3}{5}$  of 25

4.  $\frac{6}{9}$  of 270      8.  $\frac{5}{10}$  of 46

5.  $\frac{6}{12}$  of 40      9.  $\frac{9}{12}$  of 32

2. 18

3. 30

4. 180

5. 20

6. 20

7. 15

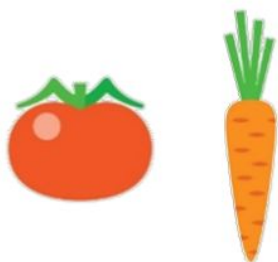
8. 23

9. 24

**Task 3****Reasoning**

Explain your answers.

5a. Tim is making a sauce. The recipe says to use  $\frac{2}{3}$  the amount of carrots as tomatoes. Tim uses 15 tomatoes but he's unsure of how many carrots to use.



How many carrots does Tim need?

Explain how you know.

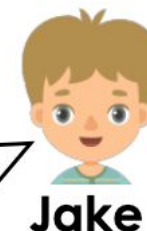
**5a. Tim needs 10 carrots because  $15 \div 3 = 5$  and  $5 \times 2 = 10$ .**

9b. Isabel and Jake calculated  $\frac{4}{12}$  of 72.



The answer is the same as  $\frac{4}{6}$  of 36.

I can multiply the answer by 10 to calculate  $\frac{8}{12}$  of 720.



Who is correct? Explain how you know.

**9b. Isabel is correct because 36 is half of 72 and the fraction is double the original so it will produce the same answer.**

**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