



Multiplying Fractions

Also, like denominators

Let's Say we have:



Fractions, Additions and Denominators

- There are 15 eggs. If you take 1 egg, the fraction is: $1/15$
- If you took 3 eggs, that is:

$$1/15 + 1/15 + 1/15$$

Fractions, Additions and Denominators

If fractions have the same denominator then you add them just like whole numbers

$$1/15 + 1/15 + 1/15 = 3/15$$

What do you call when you add the same thing over and over?

MULTIPLICATION!

$$1/15 + 1/15 + 1/15 = \mathbf{3 \times 1/15}$$

The **Denominator** is the bottom number of the fraction. One way to remember this is that the Denominator is down below and both the word **Denominator** and **Down** start with the letter **D**

2 9 

Denominator

Same Denominator:

$$\frac{1}{9} \quad \frac{4}{9} \quad \frac{7}{9}$$

Different Denominator:

$$\frac{4}{9} \quad \frac{4}{11} \quad \frac{1}{12}$$

Denominator:

- Number of parts
- More than just “ the number on the bottom”
- Is the number of pieces that make a WHOLE

Denominator means the number of parts

If there are 15 eggs, then 1 egg is : $1/15$

The number 15 on the bottom, the denominator, tells you how many Eggs make up the whole nest of chicken eggs

Multiplying Fractions

Let's say a chicken lays her eggs in 3 rows of 5 eggs each



If we take out 5 of the 15 eggs it is: $\frac{5}{15}$

Because:

1. We have 5 eggs- the Numerator



If we take out 5 of the 15 eggs it is: $\frac{5}{15}$

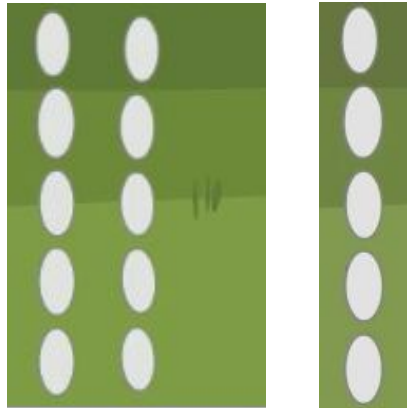
Because:



1. We have 5 eggs- the Numerator
2. It takes 15 eggs to make the whole- the Denominator

5 out of 15 is also 1/3

If we think of the whole nest as 3 lines, 3 would be the number of parts to make the whole (denominator) and 1 would be the number of lines we have taken (the numerator).



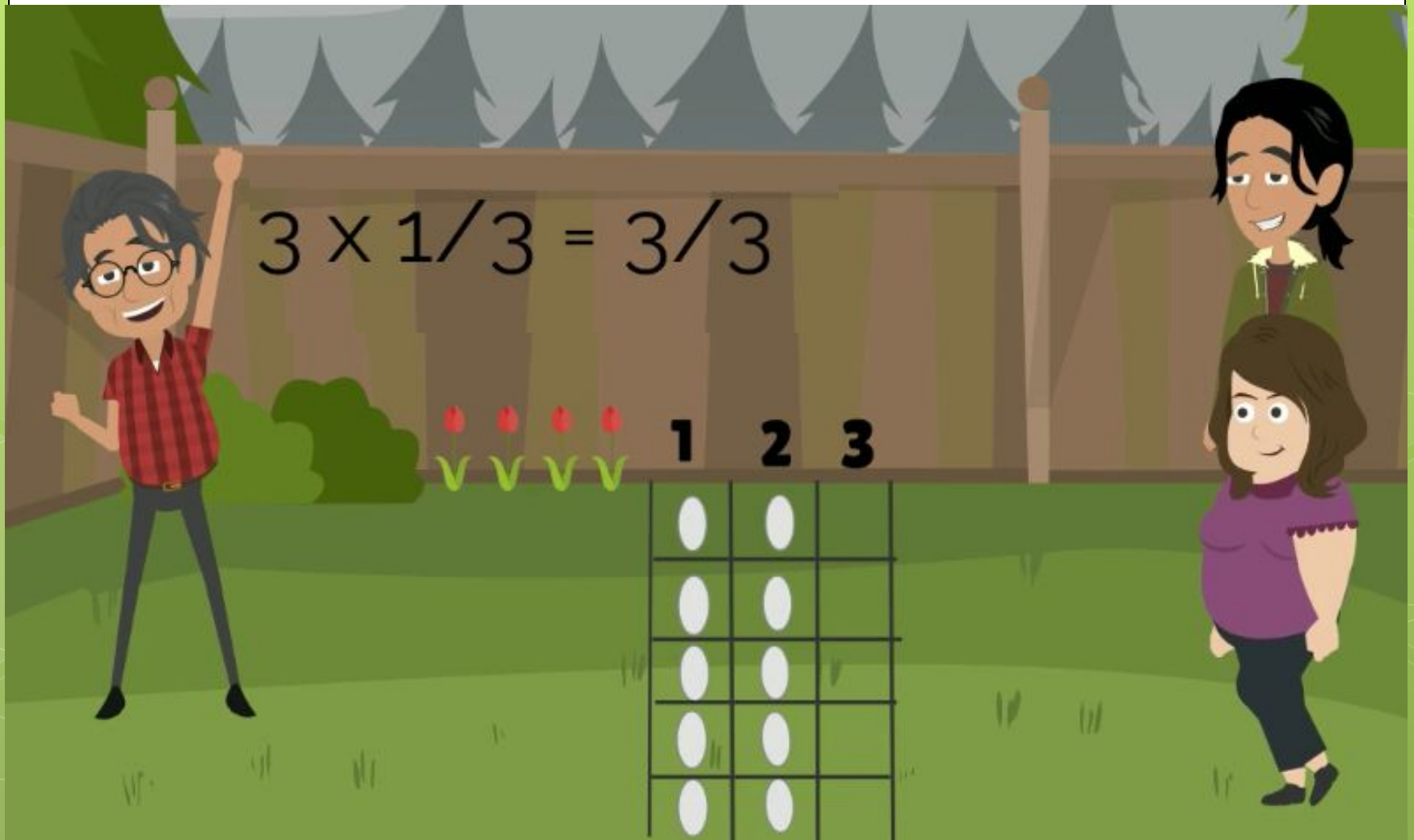
Let's say $\frac{1}{3}$ of the eggs was enough for Grandfather.



1 **2** **3**

○	○	
○	○	
○	○	
○	○	
○	○	

But then 2 people showed up



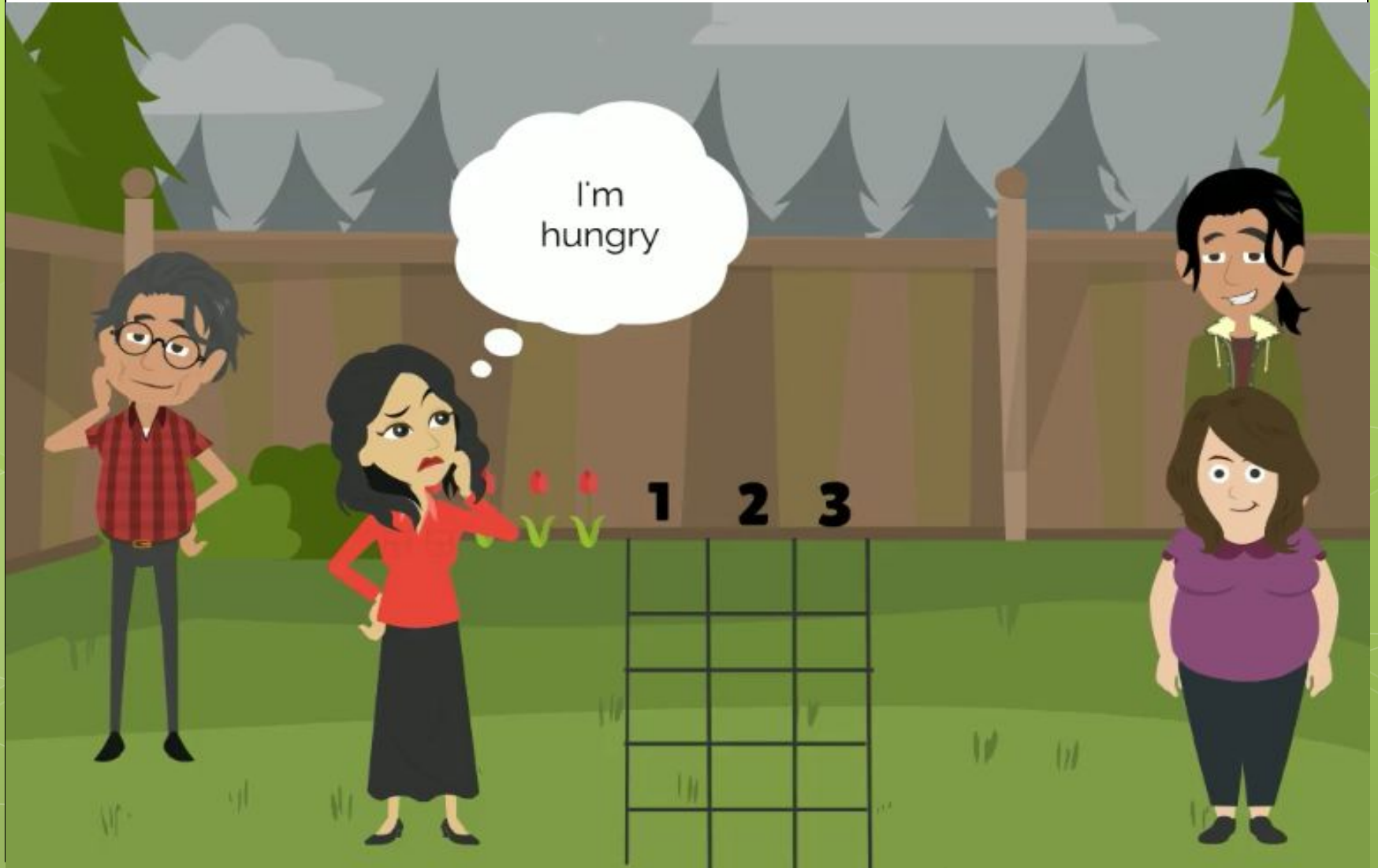
$$3 \times 1/3 = 3/3 = 1$$



If we take $1/3$ of the eggs 3 times...

We have taken 1 whole nest full of eggs

What if 3 people came to visit?



We already know a whole nest.. = $3/3= 1$

If there are 4 people we would need:

$$4 \times 1/3 = 4/3$$



$$1 \frac{1}{3}$$

We need 2 nests

We already took 1
whole
nest of eggs.

And now $\frac{1}{3}$ of
the other

$$\frac{4}{3} = 1 \frac{1}{3}$$