



10.02.21

IALT: explore equivalent fractions.

What fraction is shown?

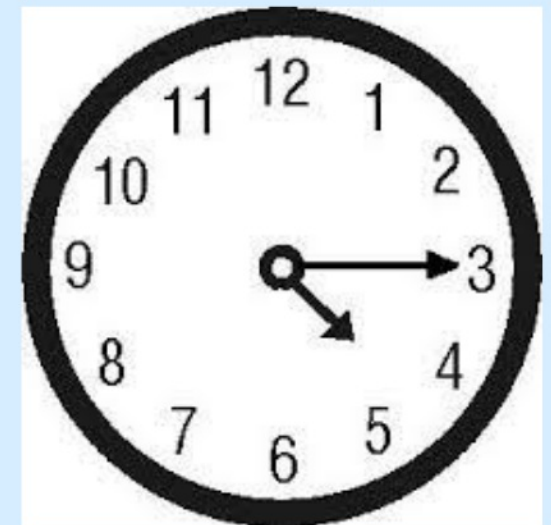


What is a denominator?

Bus Stop Division:  $442 \div 2$

Long Multiplication:  $854 \times 4$

Challenge:



<https://www.topmarks.co.uk/maths-games/daily10>



10.02.21

IALT: explore equivalent fractions.

What fraction is shown?

$$\frac{5}{3} \text{ OR } 1\frac{2}{3}$$



4:15

OR

Quarter past 4

What is a denominator?

The number below the line in a fraction. It is the divisor.

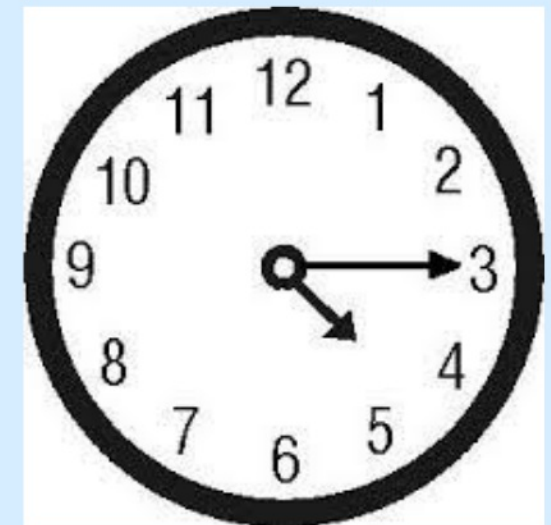
Bus Stop Division:  $442 \div 2$

221

Long Multiplication:  $854 \times 4$

3416

Challenge:



<https://www.topmarks.co.uk/maths-games/daily10>

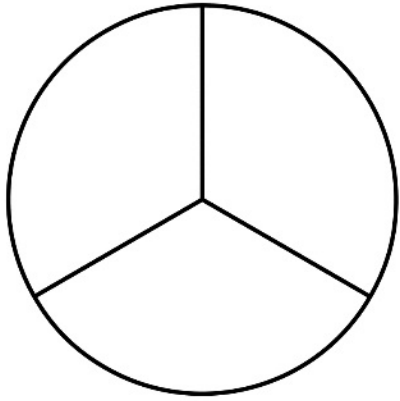
## Daily Counting

halves

thirds

quarters



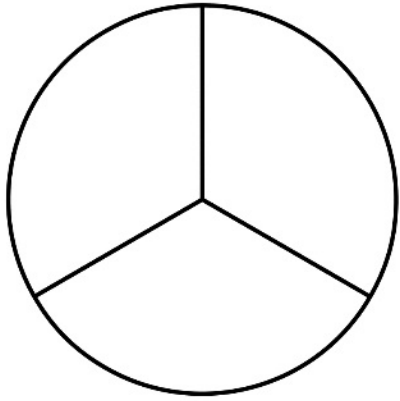


$$\frac{1}{3} = \frac{\square}{6} = \frac{\square}{12} = \frac{\square}{24}$$

How can we use multiplication to help us solve these?

We multiply the numerator and denominator by the same factor.

$$\frac{1}{4} = \frac{2}{\square} = \frac{\square}{12} = \frac{4}{\square} = \frac{\square}{100} = \frac{\square}{500}$$



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

How can we use multiplication to help us solve these?

We multiply the numerator and denominator by the same factor.

$$\frac{1}{4} = \frac{2}{\boxed{8}} = \frac{\boxed{3}}{12} = \frac{4}{\boxed{16}} = \frac{\boxed{25}}{100} = \frac{\boxed{\phantom{000}}}{500}$$



## Equivalent Fractions (2)

### Deeper



Which one is the odd one out and why?

A

$$\frac{4}{10}$$

B

$$\frac{1}{5}$$

C

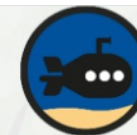
$$\frac{10}{50}$$

D

$$\frac{4}{20}$$



## Equivalent Fractions (2) | Deepest



Explore the equivalent fraction number sequence. Predict what comes next and explain the pattern.

$$\frac{2}{3} = \frac{6}{9} = \frac{18}{27} = \frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}}$$





Mild:

What has happened to the numerator and denominator?  
Copy into your book. Use a colour to show what has happened.

$$\begin{array}{r} 1 = \frac{5}{2} \\ 10 \end{array}$$

Example

$$\frac{1}{3} = \frac{3}{9}$$

$$\frac{2}{5} = \frac{6}{15}$$

$$\frac{8}{12} = \frac{24}{36}$$

$$\frac{5}{6} = \frac{10}{\boxed{\phantom{000}}}$$

$$\frac{4}{5} = \frac{\boxed{\phantom{000}}}{25}$$

$$\frac{3}{7} = \frac{\boxed{\phantom{000}}}{21}$$

$$\frac{4}{\boxed{\phantom{000}}} = \frac{16}{20}$$

$$\frac{\boxed{\phantom{000}}}{8} = \frac{9}{24}$$

$$\frac{\boxed{\phantom{000}}}{6} = \frac{40}{48}$$

If you multiply the denominator you have increased the number of \_\_\_\_\_ so  
you need to multiply the numerator by the same f\_\_\_\_\_ so that \_\_\_\_\_





Spicy:

Can you use multiplication to find some more?

$$\frac{2}{3} = \frac{6}{9} =$$

$$\frac{3}{7} = \frac{9}{21} =$$

$$\frac{3}{4} = \frac{15}{20} =$$

$$\frac{2}{5} = \frac{16}{40} =$$

Extension:

Tommy is finding equivalent fractions.

$$\frac{3}{4} = \frac{5}{6} = \frac{7}{8} = \frac{9}{10}$$

He says,



I did the same thing to the numerator and the denominator so my fractions are equivalent.

Do you agree with Tommy?  
Explain your answer.



HHH:

Use your knowledge of equivalent fractions to solve this problem.

3 girls share 2 cakes equally. 6 boys share 4 cakes equally.

Who gets to eat more cake?

Draw a model or image to support your written explanation.



ANSWER  
PROVE  
EXPLAIN!

Does the number of slices matter?

2 cakes cut into 3 would be \_\_\_\_\_ slices.

The girls would get \_\_\_\_ slices each. As a fraction this would be \_\_\_\_

4 cakes cut into 6 slices each would be \_\_\_\_ slices.

The boys would get \_\_\_\_ slices each. As a fraction this would be \_\_\_\_

They got an \_\_\_\_\_ amount of cake because \_\_\_\_\_



Mild:

ANSWERS:

What has happened to the numerator and denominator?  
Copy into your book. Use a colour to show what has happened.

$$\begin{array}{r} 1 = \frac{3}{5} \\ 2 = \frac{10}{5} \end{array}$$

Example

$$\frac{1}{3} = \frac{3}{9}$$

$$\frac{2}{5} = \frac{6}{15}$$

$$\frac{8}{12} = \frac{24}{36}$$

$$\frac{5}{6} = \frac{10}{12}$$

$$\frac{4}{5} = \frac{20}{25}$$

$$\frac{3}{7} = \frac{9}{21}$$

$$\frac{4}{5} = \frac{16}{20}$$

$$\frac{3}{8} = \frac{9}{24}$$

$$\frac{5}{6} = \frac{40}{48}$$

If you multiply the denominator you have increased the number of \_\_\_\_\_ so  
you need to multiply the numerator by the same f\_\_\_\_\_ so that \_\_\_\_\_



Spicy:

ANSWERS:

Can you use multiplication to find some more?

$$\frac{2}{3} = \frac{6}{9} = \frac{18}{27}$$

$$\frac{3}{7} = \frac{9}{21} = \frac{27}{63}$$

$$\frac{3}{4} = \frac{15}{20} = \frac{75}{100}$$

$$\frac{2}{5} = \frac{16}{40} = \frac{128}{320}$$

No, because he has added each time instead of multiplying.

Extension:

Tommy is finding equivalent fractions.

$$\frac{3}{4} = \frac{5}{6} = \frac{7}{8} = \frac{9}{10}$$

He says,



I did the same thing to the numerator and the denominator so my fractions are equivalent.

Do you agree with Tommy?  
Explain your answer.





HHH:

ANSWERS:

Use your knowledge of equivalent fractions to solve this problem.

3 girls share 2 cakes equally. 6 boys share 4 cakes equally.

Who gets to eat more cake?

Draw a model or image to support your written explanation.



Girls got more cake.

ANSWER  
PROVE  
EXPLAIN!

Does the number of slices matter?

2 cakes cut into 3 would be  $\frac{2}{3}$  slices.

The girls would get  $\frac{2}{3}$  slices each. As a fraction this would be  $\frac{2}{3}$

4 cakes cut into 6 slices each would be  $\frac{4}{6}$  slices.

The boys would get  $\frac{4}{6}$  slices each. As a fraction this would be  $\frac{4}{6} = \frac{2}{3}$

They got an equal amount of cake because both groups got 2/3 of a cake each