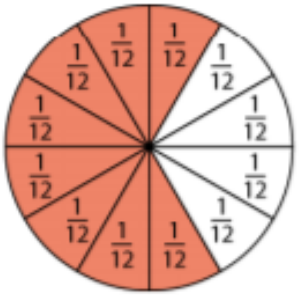
09.05.2022

Representing fractions as repeated addition and multiplication



___ + ___ + ___ + ___ + ___ + ___ + ___ + ___

___ x ___ ___ x ___

$\frac{1}{9}+\frac{1}{9}+\frac{1}{9}=\square\times\frac{1}{9}$

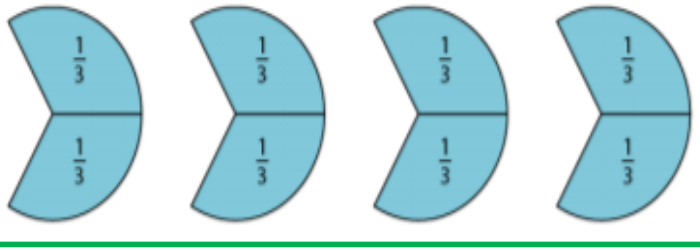
$\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}=\square\times\frac{1}{9}$

$\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}=5\times\square$

$\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}+\frac{1}{9}=\frac{1}{9}\times\square$

$\square=6\times\frac{1}{8}$

$\square=\frac{1}{8}\times5$



___ + ___ + ___ + ___

___ x ___ ___ x ___

$\frac{3}{5}+\frac{3}{5}+\frac{3}{5}+\frac{3}{5}=\square\times\frac{3}{5}$

$\frac{3}{5}+\frac{3}{5}+\frac{3}{5}+\frac{3}{5}+\frac{3}{5}+\frac{3}{5}=6\times\square$

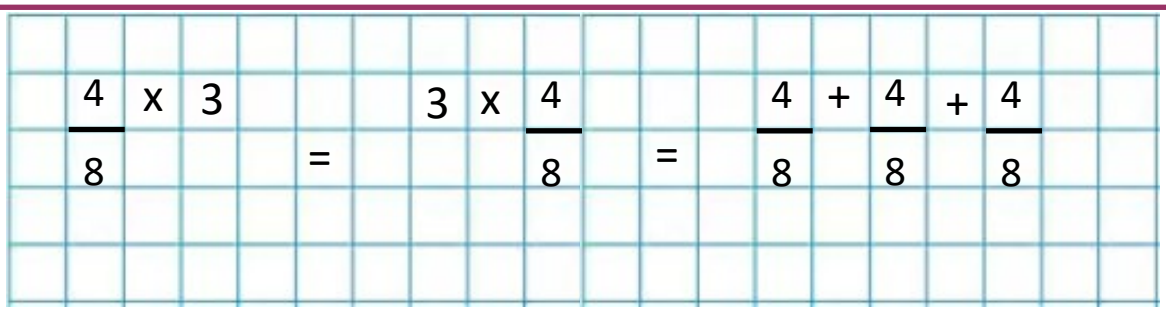
$\square=3\times\frac{2}{7}$

$\square=\frac{8}{7}\times4$

09.05.2022

CHALLENGE

1. Choose a number between 7 - 10. This is the denominator
2. Roll a 6 sided dice. The number you roll gives you the numerator.
3. Roll the dice again. This tells you what you are multiplying by.
4. Journal in your book what the repeated addition and multiplica-



09.05.2022

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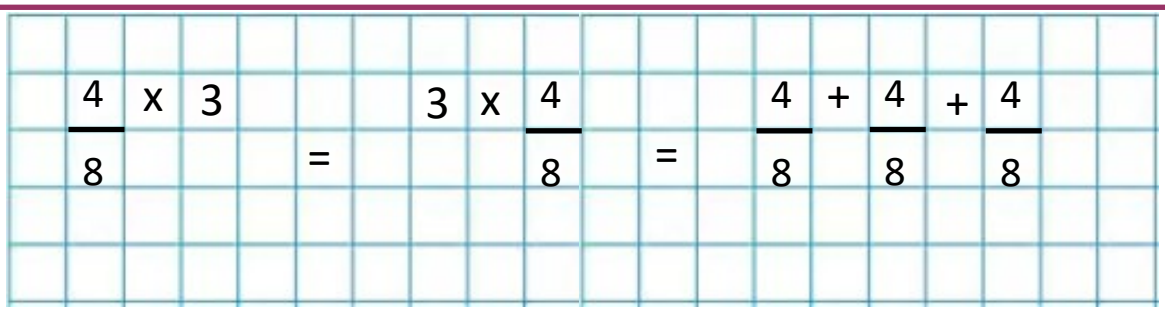

10.05.2022

Multiplying fractions by a whole number

The numerator of the fraction is multiplied by the whole number and the denominator always stays the same.

Always, sometimes, never?

Convince me!

10.05.2022

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Multiplying fractions by a whole number

The numerator of the fraction is multiplied by the whole number and the denominator always stays the same.

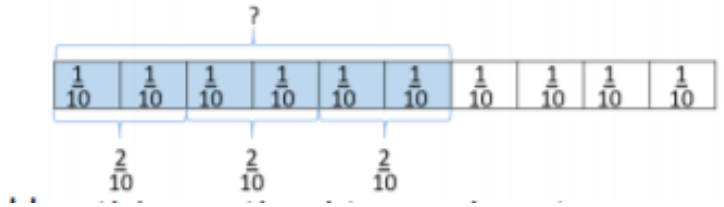
Always, sometimes, never?

Convince me!

11.05.2022

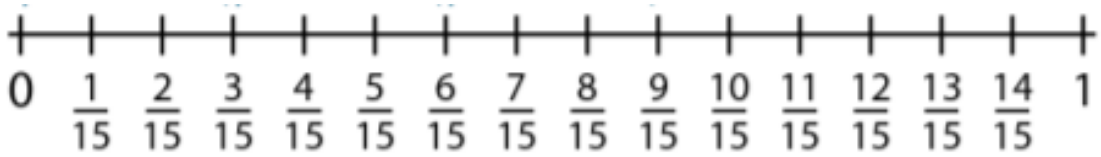
Multiplying fractions by a whole number

Use the model to help you solve $3 \times \frac{2}{10} = \frac{\square}{\square}$



$\frac{3}{15} \times 3 = \frac{\square}{\square}$

Use the number line to show how to work out this equation.



$\frac{3}{20} \times 4 = \frac{\square}{\square}$

$3 \times \frac{5}{18} = \frac{\square}{\square}$

$6 \times \frac{2}{14} = \frac{\square}{\square}$

$\frac{4}{11} \times 2 = \frac{\square}{\square}$

In a sports session, Year 4 run 2/9km 3 times. How far did they run in total?

11.05.2022

CHALLENGE

Amir is multiplying fractions by a whole number.

$$\frac{1}{5} \times 5 = \frac{5}{25}$$

Can you explain his mistake?

I am thinking of a unit fraction.

When I multiply it by 4 it will be equivalent to $\frac{1}{2}$

When I multiply it by 2 it will be equivalent to $\frac{1}{4}$

What is my fraction?

1.

What do I need to multiply my fraction by so that my answer is equivalent to $\frac{3}{4}$?

Can you create your own version of this problem?

2.

You need to multiply it by _____

Own version:

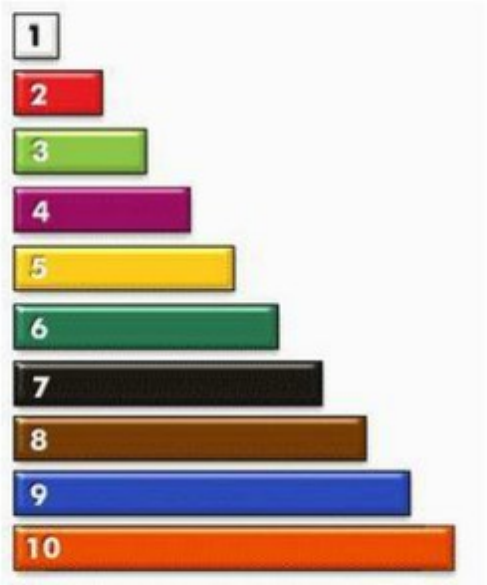
Journalling moment!

'How many ways can you complete this equation?'

$$\frac{24}{25} = \frac{\square}{\square} \times \frac{\square}{25}$$

12.05.2022

Multiplying fractions by a whole number (greater than 1)

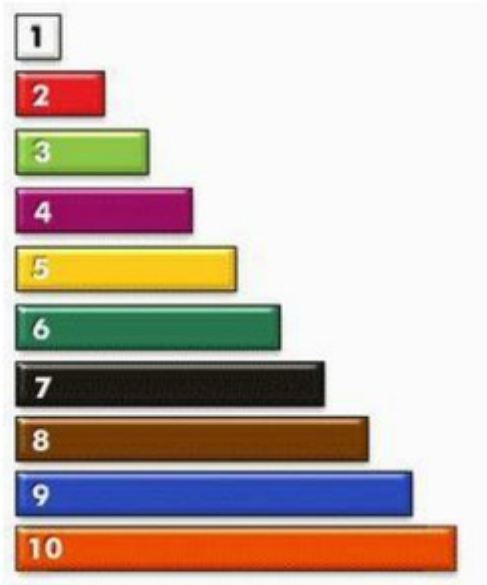


$$4 \times \frac{5}{7} \qquad 3 \times \frac{8}{10}$$

$$7 \times \frac{3}{4} \qquad 5 \times \frac{3}{5}$$

12.05.2022

Multiplying fractions by a whole number (greater than 1)



$$4 \times \frac{5}{7} \qquad 3 \times \frac{8}{10}$$

$$7 \times \frac{3}{4} \qquad 5 \times \frac{3}{5}$$