165 children and adults go on a school trip.

Two thirds of the people are children.

a) How many adults are on the school trip?

b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

c) $\frac{7}{10}$ of the children have an apple for lunch.
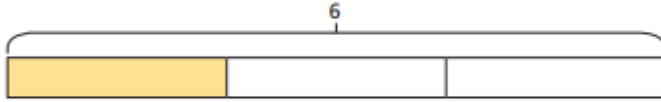
How many children do **not** have an apple for lunch?

RECALL

a) Work out $\frac{1}{3} \times 6$

$\frac{1}{3} \times 6 = \dfrac{\boxed{}}{3} = \boxed{}$

b) Work out $\frac{1}{3}$ of 6

6

$\frac{1}{3}$ of $6 = \boxed{} \div \boxed{} = \boxed{}$

c) What is the same about these calculations?

d) Work out $\frac{2}{3}$ of 6

$\frac{2}{3}$ of $6 = \boxed{} \div \boxed{} \times 2 = \boxed{}$

e) Work out $\frac{2}{3} \times 6$

$\frac{2}{3} \times 6 = \boxed{} = \boxed{}$
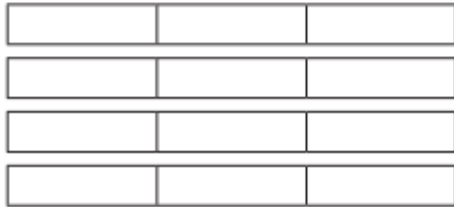
LO: Fractions as operators .

Some will even explain which method is easier.

Some will explain why they have used that method.

Most will multiply and divide fractions.

All will use bar models to help them work out calculations.

LEARNING HABIT RESILIENCE.

) $12 \times \frac{1}{4} = \square$

$\frac{1}{4}$ of 12 = $\square$

$12 \times \frac{2}{3} = \square$

$\frac{2}{3}$ of 12 = $\square$

$\frac{3}{4} \times 12 = \square$

$\frac{3}{4}$ of 12 = $\square$

INTELLIGENT PRACTICE.

Dive deeper 1

Complete the calculations.

a) $\frac{5}{6} \times 12 = \frac{\Box}{\Box}$ of 12 = $\Box$

b) $\frac{3}{4} \times 24 = \frac{\Box}{\Box}$ of 24 = $\Box$

c) $\frac{2}{7} \times \Box = \frac{\Box}{\Box}$ of 28 = $\Box$

d) $\frac{\Box}{\Box} \times 45 = \frac{4}{5}$ of $\Box = \Box$

Dive deeper 2

Which calculation in each pair is easier to work out?

a) $\boxed{\frac{1}{5} \times 7}$ $\boxed{\frac{1}{5} \text{ of } 7}$

b) $\boxed{\frac{1}{5} \times 10}$ $\boxed{\frac{1}{5} \text{ of } 10}$

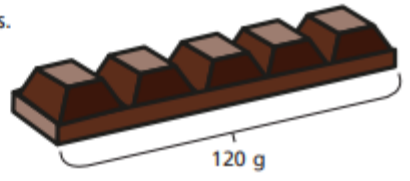c) $\boxed{\frac{3}{5} \times 10}$ $\boxed{\frac{3}{5} \text{ of } 10}$

d) $\boxed{\frac{3}{10} \times 5}$ $\boxed{\frac{3}{10} \text{ of } 5}$

A bar of chocolate has 5 equal pieces.
The whole bar weighs 120 g.

How much do three pieces weigh?   120 g

a) Write two calculations that will give the answer to the problem.

b) Work out the answer.

Dive deeper 3

Teddy and Annie are working out $\frac{3}{7} \times 42$

a)

I will multiply 42 by $\frac{3}{7}$

Teddy

Use Teddy's method to work out the calculation.

b)

I will find $\frac{3}{7}$ of 42

Annie

Use Annie's method to work out the calculation.

c) Whose method do you prefer?
Explain why.

d) When is it easier to find fractions of amounts rather than multiply fractions?
Give some examples for each method.

DIVE DEEPER