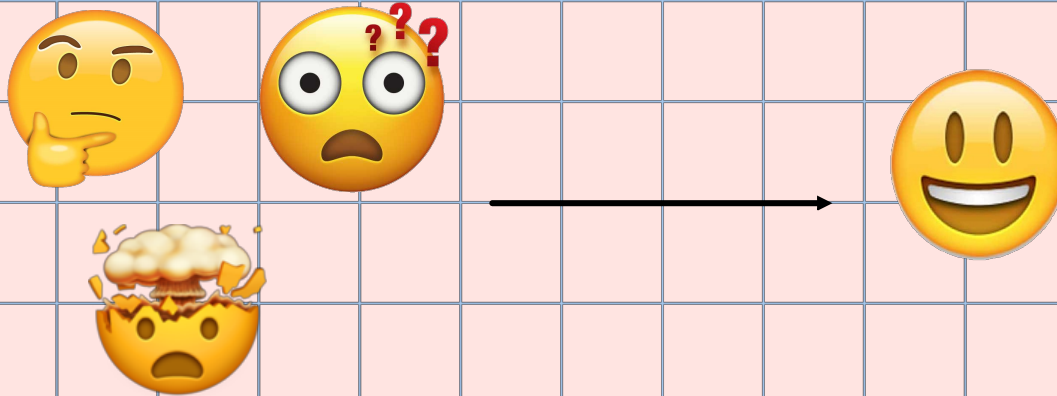


Adding and subtracting fractions



Adding and subtracting fractions.

Step 1: Make sure the bottom numbers (the denominators) are the **same**.
If not, find a **common multiple** of both denominators.

Step 2: What did you multiply each **denominator** by?
Multiply the **numerator** by this number.

Step 3: Add the top numbers (the numerators), put the answer over the denominator (**which stays the same**)

Step 4: Simplify the fraction (if needed).
Using common factors knowledge

These are our Steps to Success
(there is a printed copy for you to take home)

$$\frac{4}{5} + \frac{5}{6}$$

Multiple: A number that may be divided by another number without a remainder.
(Multiples of 5 are 5,10,15,20,25...)

Factors: Numbers that can be multiplied together to get the original number.
(Factors of 12 are 1,2,3,4,6 and 12)

How to teach adding and subtracting fractions

$$\frac{4}{5} + \frac{5}{6}$$

Factors of 5

5, 10, 15, 20, 25, 30

Factors of 6

6, 12, 18, 24, 30

Common factor

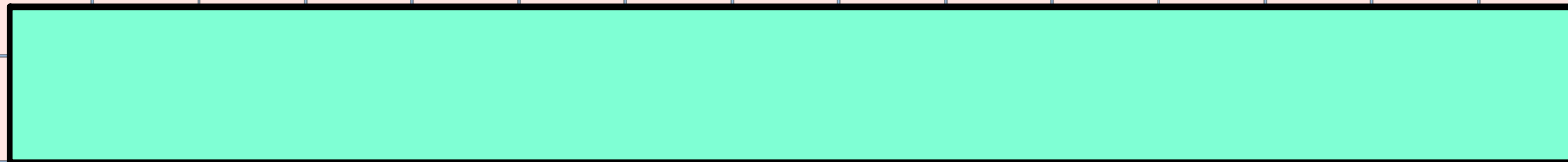
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Our shortcut method:



How to teach adding and subtracting fractions

$$\begin{array}{r} \times 6 \\ \frac{4}{5} \\ + \\ \frac{5}{6} \\ \times 5 \\ \hline \frac{24}{30} + \frac{25}{30} \end{array}$$

Step 1: Make sure the bottom numbers (the denominators) are the **same**. If not, find a **common multiple** of both denominators.

Step 2: What did you multiply each **denominator** by? **Multiply** the **numerator** by this number.

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5, 10, 15, 20, 25, **30**

6, 12, 18, 24, **30**

How to teach adding and subtracting fractions

$$\frac{4}{5} + \frac{5}{6}$$

$$\frac{24}{30} + \frac{25}{30} = \frac{49}{30}$$

Our even shorter cut method:

Step 1: Make sure the bottom numbers (the denominators) are the **same**.
If not, find a **common multiple** of both denominators.

Step 2: What did you multiply each **denominator** by?
Multiply the **numerator** by this number.

Step 3: Add the top numbers (the numerators), put the answer over the denominator (**which stays the same**)

Step 4: Simplify the fraction (if needed).
Using common factors knowledge

How to teach adding and subtracting fractions

$$\frac{24}{30} + \frac{25}{30} = \frac{49}{30} = \boxed{}$$

Step 1: Make sure the bottom numbers (the denominators) are the **same**. If not, find a **common multiple** of both denominators.

Step 2: What did you multiply each **denominator** by? **Multiply** the **numerator** by this number.

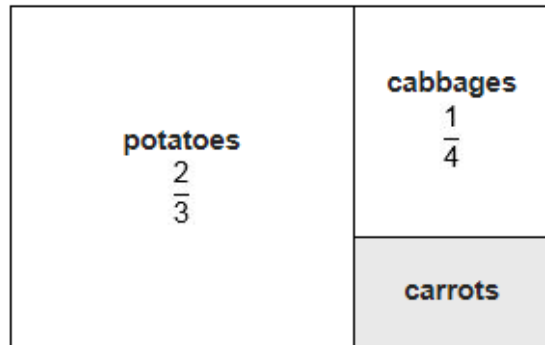
Step 3: Add the top numbers (the numerators), put the answer over the denominator (**which stays the same**)

Step 4: Simplify the fraction (if needed).
Using common factors knowledge

Example SATs questions

This is a diagram of a vegetable garden.

It shows the fractions of the garden planted with potatoes and cabbages.

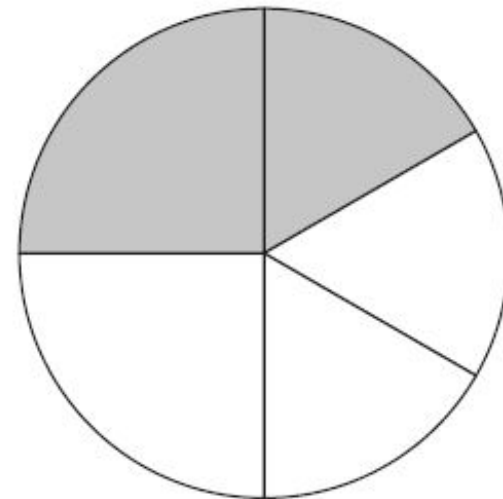


Not to scale

The remaining area is planted with carrots.

What **fraction** of the garden is planted with carrots?

In this circle, $\frac{1}{4}$ and $\frac{1}{6}$ are shaded.



What fraction of the whole circle is **not** shaded?

