RECALL

$\frac{2}{7} + \frac{5}{7} =$ ☐ $\frac{5}{7} + \frac{2}{7} =$ ☐

Find the answers...

How did you do this?

RECALL

$$\frac{2}{7} + \frac{5}{7} = \frac{7}{7}$$

$$\frac{2}{4} + \frac{3}{8} =$$

x2

$$\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$$

$$\frac{2}{3} + \frac{3}{4} =$$

x4 x3

$$\frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}$$

Nothing

Change one

Change both!

L.O. - ADD AND SUBTRACT FRACTIONS WITH DIFFERENT DENOMINATIONS AND MIXED NUMBERS, USING THE CONCEPT OF EQUIVALENT FRACTIONS.

- SOME WILL EVEN: Solve problems involving adding and subtracting fractions.
- SOME WILL: Be able to identify missing numbers in fraction sums.
- MOST WILL: Recognise LCM (lowest common multiples) to convert fractions to same denominator.
- ALL WILL: Add and subtract fractions with same denominators.

GUIDED PRACTICE - MY TURN

a) What fraction of a bale of hay does Hattie eat in a day?

b) Molly eats one quarter of a bale of hay less than Hattie a day.

What fraction of a bale of hay does Molly eat in a day?

help

Draw a bar model to help you and don't forget about 'common denominator'.

CHALLENGE!

How much hay do the horses eat together in a day?

GUIDED PRACTICE - OUR TURN

a) What fraction of a bale of hay does Hattie eat in a day?

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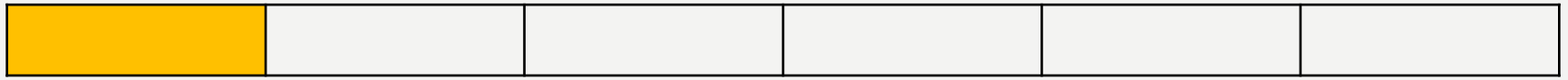
CHALLENGE!

How much hay do the horses eat together in a day?



$\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6} = ???$

$\frac{5}{6} - \frac{1}{4} = \frac{10}{12} - \frac{3}{12} = \frac{7}{12}$

GUIDED PRACTICE - YOUR TURN

a) What fraction of a bale of hay does Hattie eat in a day?

b) Molly eats one quarter of a bale of hay less than Hattie a day.

What fraction of a bale of hay does Molly eat in a day?

help

Draw a bar model to help you and don't forget about 'common denominator'.

CHALLENGE!

How much hay do the horses eat together in a day?

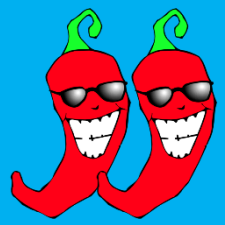
Intelligent Practice

$\frac{1}{10} + \frac{3}{10} =$

$\frac{2}{5} + \frac{1}{5} =$

$\frac{3}{5} - \frac{2}{5} =$

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

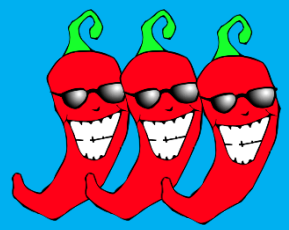


$\frac{1}{2} + \frac{3}{8} =$

$\frac{2}{3} + \frac{1}{9} =$

$\frac{3}{4} - \frac{3}{8} =$

$\frac{1}{2} - \frac{3}{8} =$



$\frac{1}{2} + \frac{3}{7} =$

$\frac{2}{3} + \frac{1}{5} =$

$\frac{3}{5} - \frac{1}{3} =$

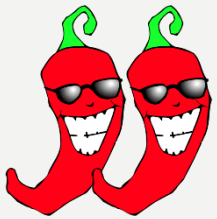
$\frac{2}{4} - \frac{3}{6} =$

$\frac{1}{27} + \frac{3}{18} =$

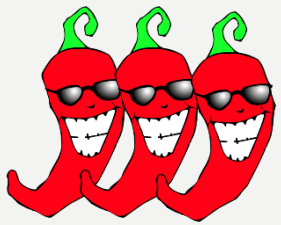
$\frac{3}{8} - \frac{1}{6} =$

Intelligent Practice

$\frac{1}{10} + \frac{3}{10} = \frac{4}{10}$ $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ $\frac{3}{5} - \frac{2}{5} = \frac{1}{5}$ $\frac{4}{4} - \frac{3}{4} = \frac{1}{4}$



$\frac{1}{2} + \frac{3}{8} = \frac{7}{8}$ $\frac{2}{3} + \frac{1}{9} = \frac{7}{9}$ $\frac{3}{4} - \frac{3}{8} = \frac{3}{8}$ $\frac{1}{2} - \frac{3}{8} = \frac{1}{8}$



$\frac{1}{2} + \frac{3}{7} = \frac{13}{14}$ $\frac{2}{3} + \frac{1}{5} = \frac{13}{15}$ $\frac{3}{5} - \frac{1}{3} = \frac{4}{15}$ $\frac{2}{4} - \frac{3}{6} =$ 0

$\frac{1}{27} + \frac{3}{18} = \frac{11}{54}$

$\frac{3}{8} - \frac{1}{6} = \frac{10}{48} = \frac{5}{24}$

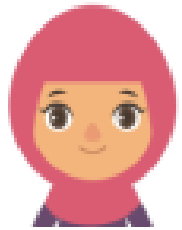
DIVE DEEPER 1

1) Use the same digit in both boxes to complete the calculation.
Is there more than one way to do it?

$$\frac{\square}{20} + \frac{1}{\square} = \frac{9}{20}$$

2)

$$\frac{5}{6} + \frac{1}{9}$$



Fatima

We can't calculate this as the denominators are different.

It's the same as...
$\frac{15}{18} + \frac{2}{18}$

Reese

Who is correct? Prove it.

3)

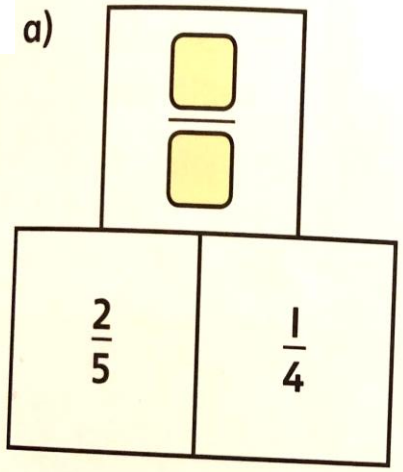
Eva has a full tin of paint. She uses $\frac{1}{3}$ of the tin on Friday, $\frac{1}{21}$ on Saturday and $\frac{2}{7}$ on Sunday. How much paint does she have left?

DIVE DEEPER 2

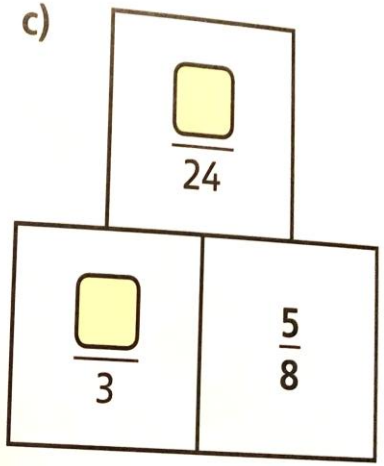
4)

Complete the following addition pyramids.

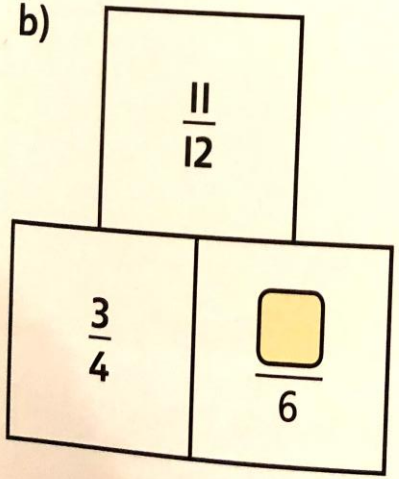
a)



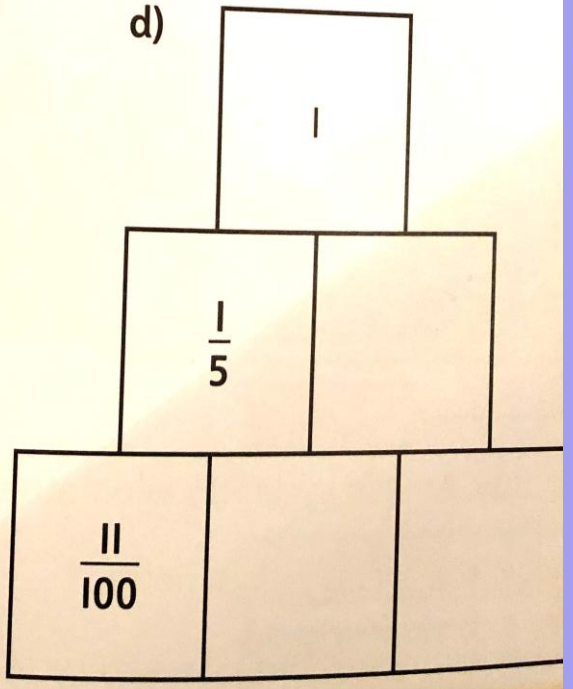
c)



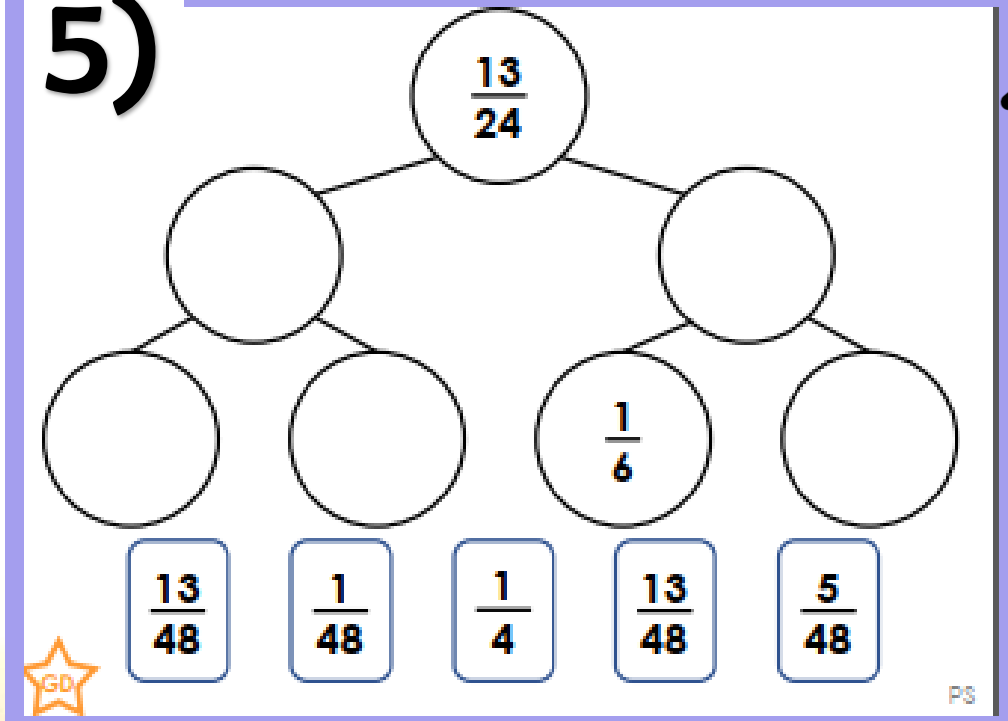
b)



d)



5)



Dexter subtracted $\frac{3}{5}$ from a fraction and his answer was $\frac{8}{45}$

What fraction did he subtract $\frac{3}{5}$ from?

Give your answer in its simplest form.

DIVE DEEPER 1

1) Use the same digit in both boxes to complete the calculation.

Is there more than one way to do it?

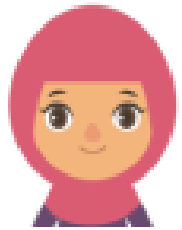
$\frac{4}{20} + \frac{1}{4} = \frac{9}{20}$

$\frac{5}{20} + \frac{1}{5} = \frac{9}{20}$

$$\frac{\square}{20} + \frac{1}{\square} = \frac{9}{20}$$

2)

$$\frac{5}{6} + \frac{1}{9}$$



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We can't calculate this as the denominators are different.

It's the same as...

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Who is correct? Prove it.

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Eva has a full tin of paint. She uses $\frac{1}{3}$ of the tin on Friday, $\frac{1}{21}$ on Saturday and $\frac{2}{7}$ on Sunday. How much paint does she have left?

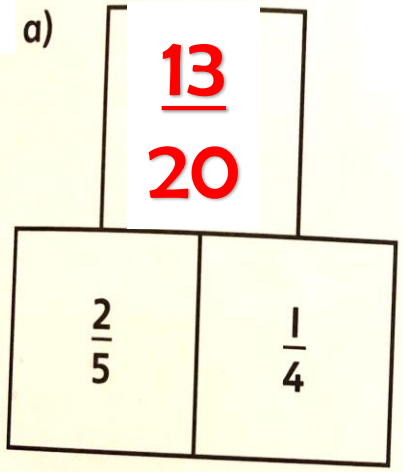
$\frac{1}{3}$

DIVE DEEPER 2

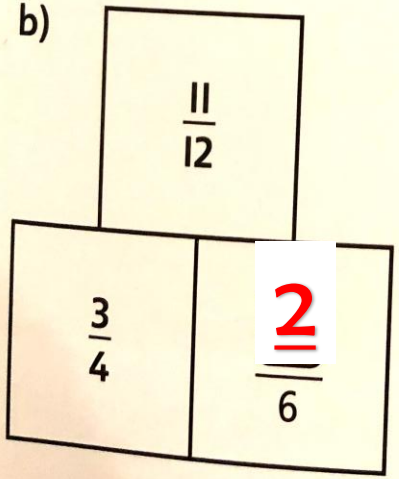
4)

Complete the following addition pyramids.

a)



b)



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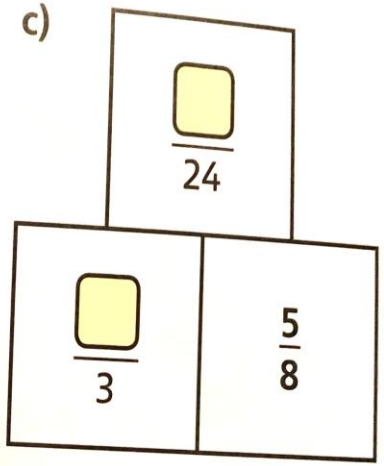
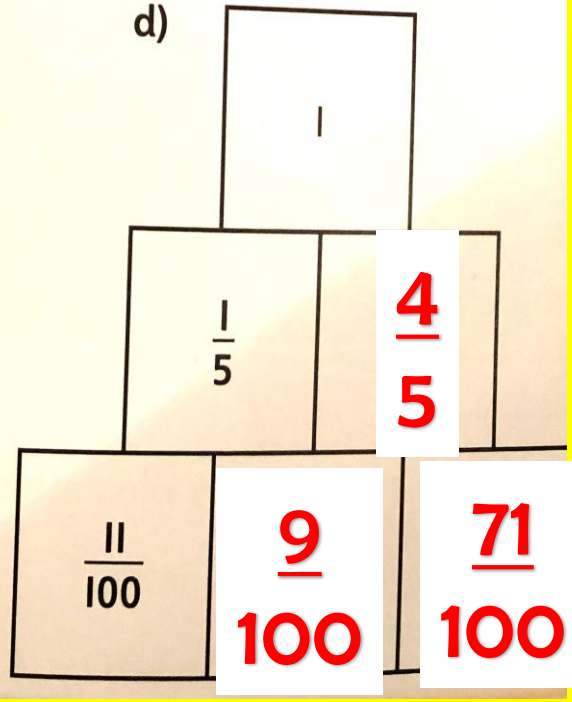
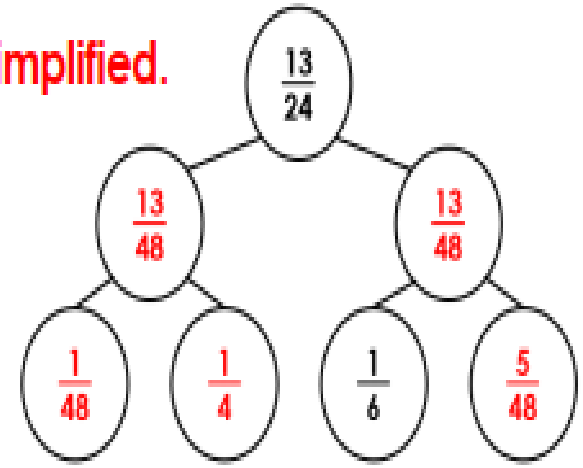


d)



5)

9a. Also accept answers which have not been simplified.

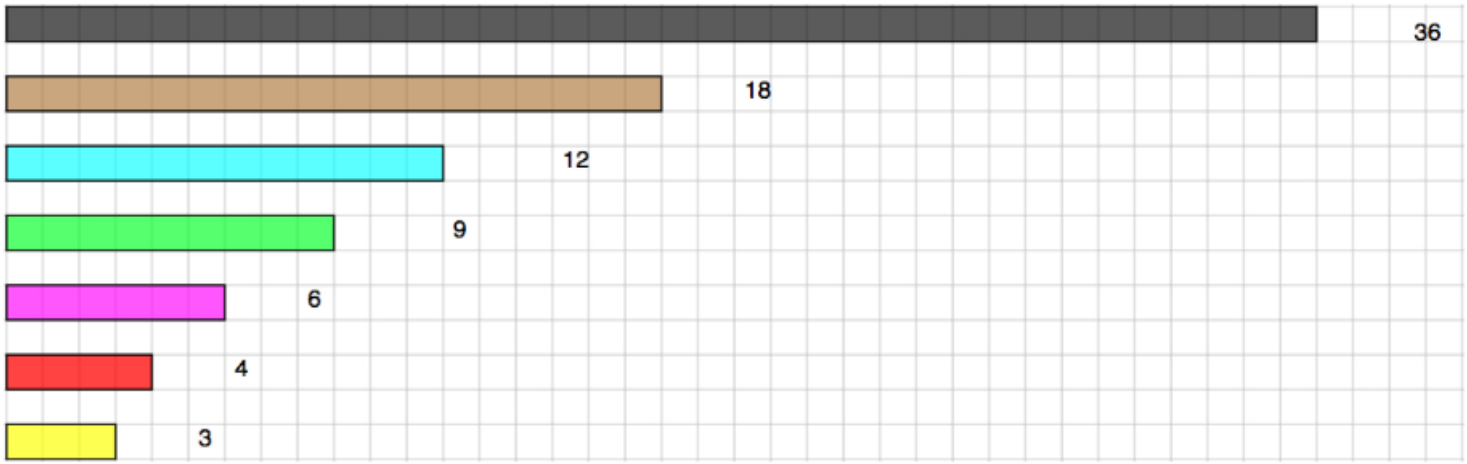


$\frac{8}{45} + \frac{3}{5} = \frac{8}{45} + \frac{27}{45}$

$\frac{8}{45} + \frac{27}{45} = \frac{35}{45} = \frac{7}{9}$

Dexter subtracted $\frac{3}{5}$ from $\frac{7}{9}$

Here are some lengths, which could be made out of connecting cubes or strips of coloured paper/card:



To start with, the **black** will be counted as ONE so that the **brown** one is $\frac{1}{2}$, the **blue** one is $\frac{1}{3}$, etc.

Using different combinations, put them together to equal the length of the **black**, which is 36 long.
For example, if you were to choose the **brown**, **blue** and **magenta** (pink) you could write them down as the $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$

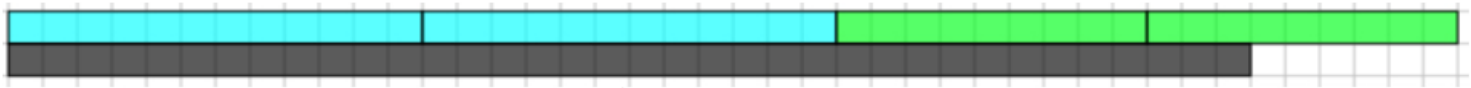
So we would have: $\frac{1}{2} + \frac{1}{3} + \frac{1}{6} = 1$

MOVING ON

Choose any four of the strips, except the **black** one, and put them together.
Now, compare them with the **black**.

Here are two examples to start you off. Have a go and find as many different fours as you can.

Using a 3, 6, 12 and an 18 makes $1\frac{1}{12}$

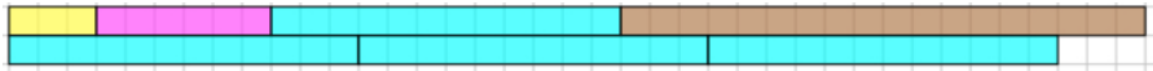


Using two 12s and two 9s makes $1\frac{1}{6}$

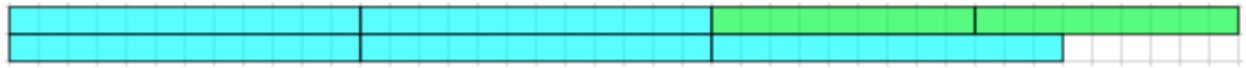
GOING EVEN FURTHER

Now the light blue strip is the ONE (1).
Use the same fours that you chose before but this time, compare them with the light blue strip instead of the **black**.

Here are the examples used above, but this time compared with a light blue:



Comparing these four to the light blue it makes $3\frac{1}{4}$



Comparing these four to the light blue it makes $3\frac{1}{2}$

Now you go ahead with the fours that you have chosen.