

Maths Week 2022

February 7th - 11th

Whole school journal: 2A Chapter 2 Lesson 13

In Focus



Can you add to find out how many flowers there are in total?

Year 1

08.02.22

Journaling L.O. To add 3 numbers.

In Focus



Can you add to find out how many flowers there are in total?
How many different ways can you show how many flowers there are altogether

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

10
2
8

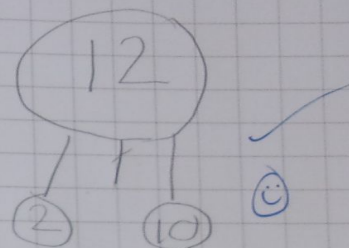
~~13~~ 12 ✓

$$7+3=10$$

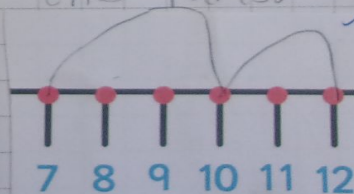
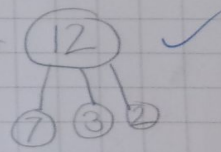
$$3+10=13$$

$$10+2=12$$

Can you show it in a PPW?



There are 12 altogether
Ten is one of the parts.



Three is the other part.

08.02.22

Journaling LO: To add 3 numbers.

In Focus

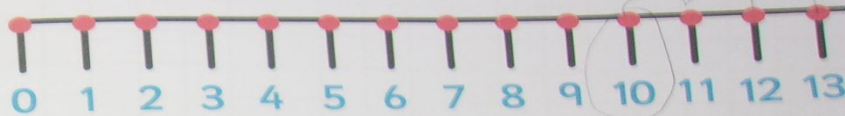
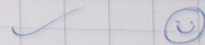


Can you add to find out how many flowers there are in total?

How many different ways can you show how many flowers there are altogether?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>			

In a number line?



a number sentence?

$$4 + 6 = 10$$

$$10 + 2 = 12$$

h words? ten and two = twelve

08.02.22

Journaling LO: To add 3 numbers.

In Focus

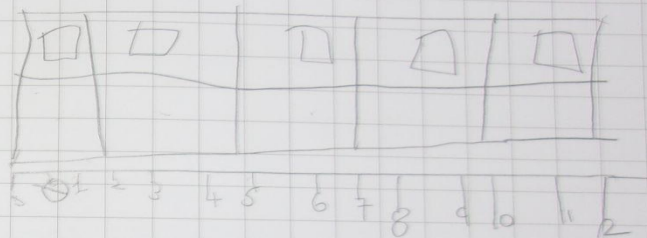
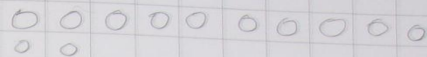


Can you add to find out how many flowers there are in total?

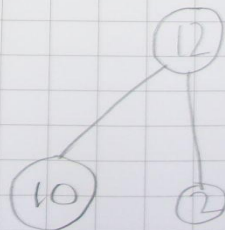
How many different ways can you show how many flowers there are altogether?

$$10 + 2 = 12$$
~~$$12 + 2 = 14$$~~

ten plus two equals twelve



Show me in a part part whole.



08.02.22

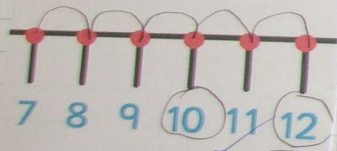
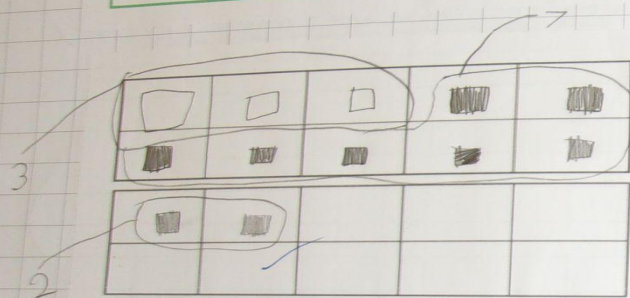
Journaling L.O. To add 3 numbers.

In Focus



Can you add to find out how many flowers there are in total?

How many different ways can you show how many flowers there are altogether?

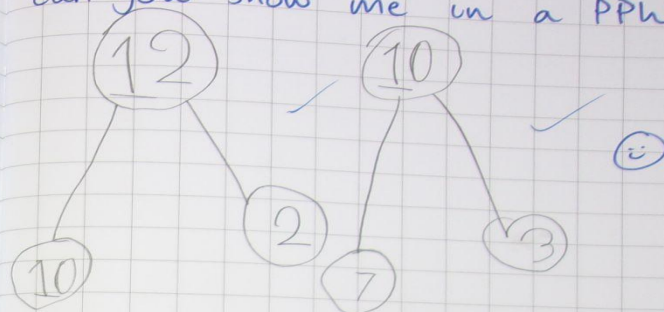


$$7 + 3 = 10$$

$$10 + 2 = 12$$

$$7 + 3 + 2 = 12$$

Can you show me in a PPW?



All together is
12

Year 2

11.02.22



Can you add to find out how many flowers there are in total?

2 + 3 + 7 = 12



I like your bar model. It's clearly labelled.

blue - 2 + 3 + 7 = 12

2 + 3 + 7 = 12
3 + 7 = 10
10 + 2 = 12

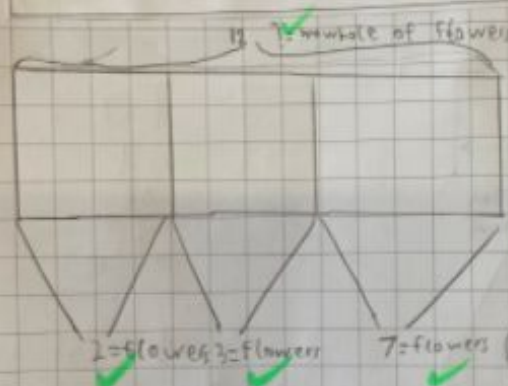
There are 12 flowers altogether.



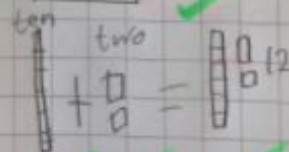
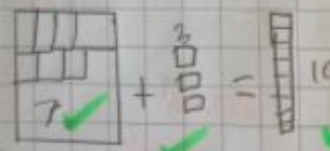
11.02.22



Can you add to find out how many flowers there are in total?



7 + 3 + 2 = 12
7 + 3 = 10
10 + 2 = 12

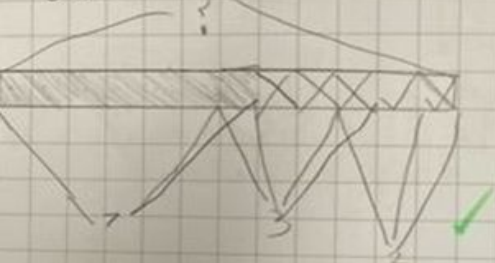


Great use of different drawings to



Can you add to find out how many flowers there are in total?

bar model?



equation

$$3+7=10$$

$$10+2=12$$

$$2+3=5$$

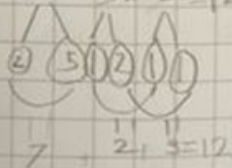
$$5+7=12$$

$$2+7=9$$

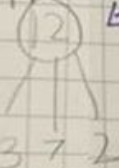
$$9+3=12$$

decomposing

$$7+3+2=12$$



ppw



Use a part-whole diagram
Representing

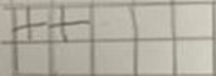
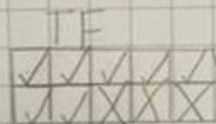
$$\text{Pink} = 7$$

$$\text{Red} = 3$$

$$\text{blue} = 2$$

$$11$$

$$12$$



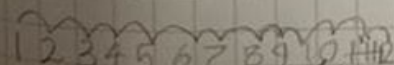
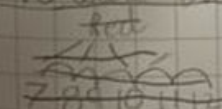
$$\checkmark = \text{Pink} = 7$$

$$X = \text{Red} = 3$$

$$+ = \text{blue} = 2$$

number sentence

If you add 7 to 3 you will get 10
10 add 2 = 12



Pink Red blue



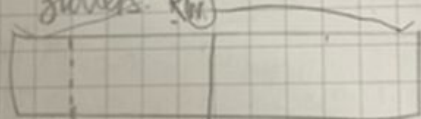
Can you add to find out how many flowers there are in total?

There are 3 pots.

In one pot there is 2 flowers.

In the 2nd pot there is 3 flowers.

In the third pot there is 1 flower.



2 7 3

Our whole is 12.

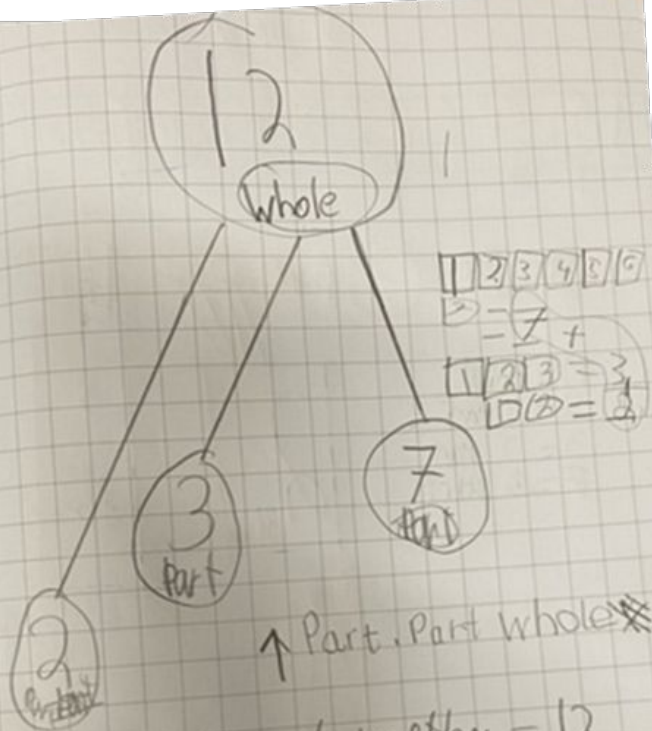
We don't know the whole ✓

We could do

$$(7+3)+0=$$

7+3 is a number bond to 10.

$$10+2=12$$



1 2 3 4 5 6

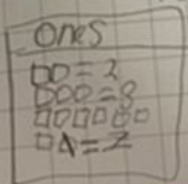
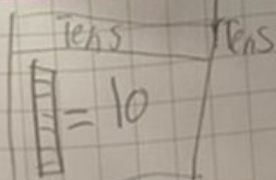
$$2 = 7 +$$

$$1 2 3 = 3$$

$$10 2 = 12$$

All the pot together = 12

Show me on a ten frame bones



$$12 - 7 = 5$$

Year 3

07.02.22

Maths To-Week Journaling

Method 1: Addition

$$7 + 3 + 2 = 12$$

$$10 + 2 = 12$$

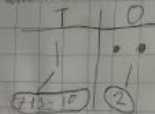
Method 2: Bar model

7 Daisies
3 Roses
2 Violets

7 Daisies = 7 boxes long
3 Roses = 3 boxes long
2 Violets = 2 boxes



Method 3: Place Value

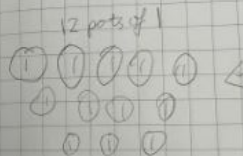
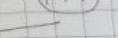
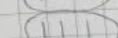
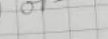
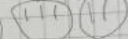
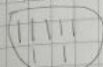


Method 4: Column method

$$\begin{array}{r} 7 \\ + 3 \\ + 2 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 12 \\ 7 \swarrow 3 \searrow 2 \\ 3 \end{array}$$

Method 5: Grouping / Division



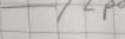
3 pots of 4



6 pots of 2



2 pots of 6



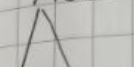
More on next page — 7

8.2.22

Maths week Journaling

$$7 + 3 + 2 = 12$$

$$4 \times 3 = 12$$



$$7 + 3 =$$

$$10 + 2 = 12$$



$$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$$

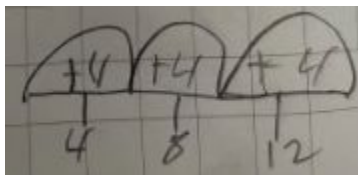
$$12 \div 3 = 4 \text{ or } 12 : 4 = 3$$

$$4 \times 3 = 12 \text{ or } 3 \times 4 = 12$$

$$7 + 5 = 12 \text{ or } 5 + 7 = 12$$



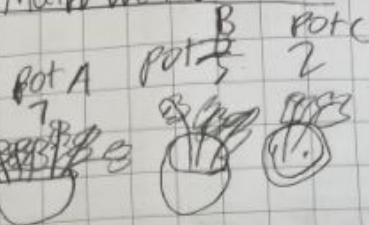
Each 3 groups has 4 flowers.
3 groups of 4 = 12 flowers.



12/12

Maths week journal

We can do these:

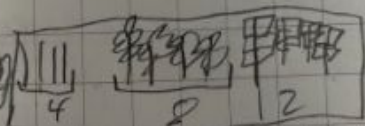


$$\begin{array}{r} 7 \\ 3 \\ \hline 12 \end{array} \quad \begin{array}{r} 7 \\ 3 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 5 \\ 7 \\ \hline 12 \end{array}$$



$$7 + 3 + 2 = 12$$



move them around so
it's the 4 times tables.

6:



$$\begin{array}{l} 7 + 2 + 3 = 12 \\ 2 + 3 + 7 = 12 \\ 3 + 7 + 2 = 12 \end{array}$$

7:

$$\begin{array}{l} 3 + 3 + 3 = 12 \\ 4 + 4 + 4 = 12 \\ 6 + 6 = 12 \\ 2 + 2 + 2 + 2 + 2 + 2 = 12 \\ 3 + \end{array}$$

8:

9:

$$\begin{array}{l} 4 + 4 = 8 + 2 = 12 \\ 4 + 4 = 8 + 2 = 12 \end{array}$$

7:

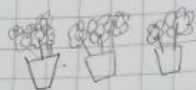
$$\begin{array}{r} 3 \\ + 2 \\ + 7 \\ \hline 12 \end{array}$$

2

$$3 + 4 = 7 + 3 + 2 = 12$$

7.2.22

Maths Week Journaling



$$2 + 3 = 5$$

$$5 + 2 = 7$$

$$5 + 7 = 12$$

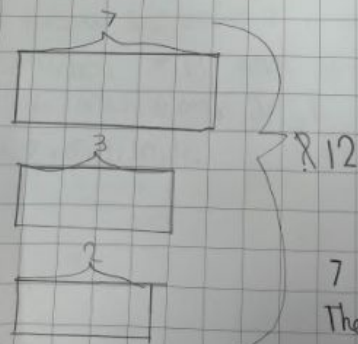
$$3 + 3 + 3 + 3 = 12$$

$$3 \times 4 = 12$$

$$6 \times 2 = 12$$

$$\begin{array}{r} 5 \\ + 7 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 7 \\ + 3 \\ + 2 \\ \hline 12 \end{array}$$



$$7 + 3 + 2 = 12$$

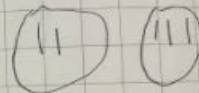
The Total is 12.

7.2.22

Maths Week Journaling

$$7 + 2 + 3 = 12$$

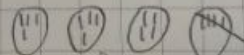
$$\begin{array}{r} 10 \\ 7 \\ + 3 \\ \hline 10 \end{array} \quad \begin{array}{r} 10 \\ 10 \\ + 2 \\ \hline 12 \end{array}$$



I can have 3 pots or another has 3 glowers and the last has 3.



I can have 4 pots of 3 glowers.



I can also have 3 pots of 4 glowers

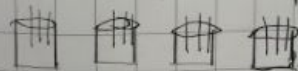
$$7 + 3 + 2 = 12$$

$$3 + 2 = 5 + 7 = 12$$

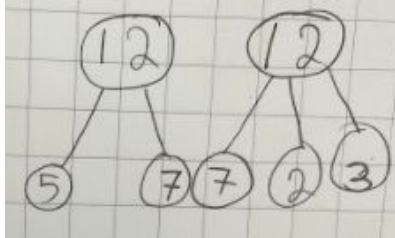
$$\begin{array}{r} 10 \\ 5 \\ 3 \\ 2 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 10 \\ 5 \\ 2 \\ 2 \\ \hline 12 \end{array}$$

I can have 4 pots



I can have 3 pots and

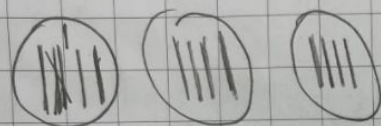
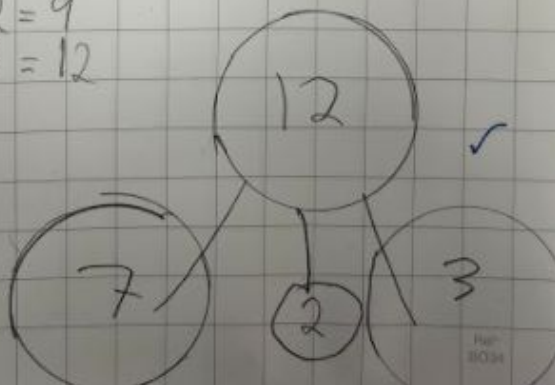




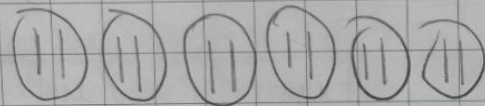
method three: $3 \times 4 = 12$ or $12 \div 3 = 4$ ✓

I have used multiplication and division to help me to get another way to 12 because it's easier.

method four: $7 + 2 = 9$
 $9 + 3 = 12$



3 groups of 4 = 12



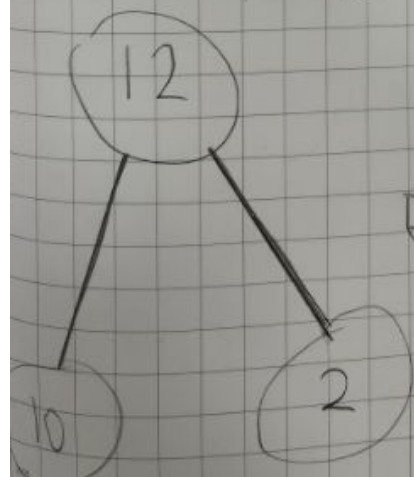
6 groups of 2 = 12

compact column method:

$$\begin{array}{r} 7 \\ 3 \\ + 2 \\ \hline 12 \end{array}$$

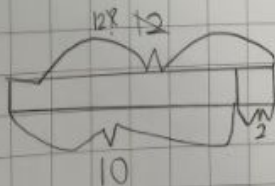
$$\begin{array}{l} 3 \times 4 = 12 \\ 7 + 3 + 2 = 12 \\ 6 \times 2 = 12 \end{array}$$

$$\begin{array}{r} +3 \quad +2 \\ 7 \quad 10 \quad (12) \end{array}$$



Expanded column method:

$$\begin{array}{r} 7 \\ 3 \\ + 2 \\ \hline 10 \\ + 2 \\ \hline 12 \end{array}$$



1.2.22

Maths Week Journaling

$$7 + 3 + 2 = 12$$

$$\begin{array}{c} (1+) (1+) (1+) (1+) (1+) \\ 12 \times 1 \\ 7 \quad 8 \quad 9 \quad 10 \quad 11 \quad 12 \end{array}$$

$$\begin{array}{c} * * * * * \\ \square + \square + \square = 12 \\ 2 \quad 3 \quad 7 \end{array}$$

$$\begin{array}{c} (111) \quad (111) = 6 \\ 3 \quad 3 \end{array}$$

We can add on the 10s, 6 + 3 = 9 and we will 9 + 3 = 12 get the same answer.
 $8 + 2 = 10$
 $10 + 2 = 12$
 $4 + 4 + 4 = 12$

$$\begin{array}{l} 3 + 3 + 3 + 3 = 12 \\ 2 + 2 + 2 + 2 + 2 + 2 = 12 \end{array}$$

$$\begin{array}{l} 7 + 5 = 12 \\ 5 + 7 = 12 \end{array}$$

$$\begin{array}{l} 4 \times 3 = 12 \\ 3 \times 4 = 12 \end{array}$$

$$\begin{array}{r} 7 \\ + * 5 \\ \hline 12 \end{array}$$

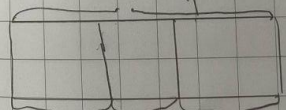
We know that $7 + 3 + 2 = 12$ and you can also say it as $6 \times 2 = 12$



$$\begin{array}{l} 6 \times 2 = 12 \\ 2 \times 6 = 12 \end{array}$$

Year 4

12 total



4 flowers in each pot $\times 3$
 pots = 12 or $12 \div 3 = 4$

This is commutative law and the numbers switch but not the answer. This only work addition and multiplication.

The quotient is 12 in total.

$7 + 3 + 2 = 12$

L = Label to work at at this equation.
 D = Data
 E = Equation
 ? = Unknown
 A = Answer

Example

9	$\times 2$	=	18
2	$\times 9$	=	18
10	$+ 4$	=	14
4	$+ 10$	=	14

Key Vocabulary

- * cumulative law
- * inverse
- * partitioning
- * quotient
- * divisor
- * dividend
- * digit
- * represents

$2 + 3 = 5 + 7 = 12$

I have done long addition.

$4 \times 3 = 12$


I have used my times tables.

$3 \times 4 = 12$

I have done Commutative Law.

Commutative Law only works for multiplication and addition.

In Focus



Can you add to find c

1 0 2 2 2

Adding 3 single digit numbers

Key Vocabulary

- * commutative law
- * inverse
- * partitioning
- * quotient
- * divisor
- * dividend
- * digit
- * amount

$$2 + 3 = 5 + 7 = 12$$

I have done long addition.

$$4 \times 3 = 12$$

I have used my times tables

$$3 \times 4 = 12$$

I have done Commutative Law.

Commutative Law only works for multiplication and addition.

The answer to this equation is 12.

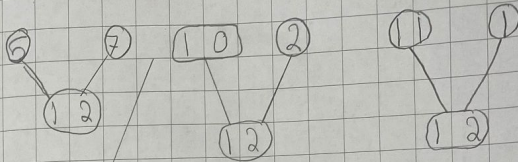
$$7 + 3 + 2 = 12$$

I have done another long addition sum.

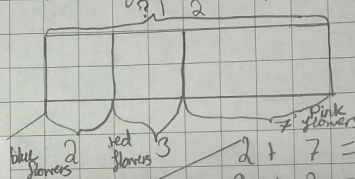
In Focus



Can you add to find out how many flowers there are in total?



I have done something similar to a part part whole.



$$2 + 7 = 9$$

$$9 + 3 = 12$$

I have done two equations to find my answer.

I have done another multiplication sum.

$$12 \times 1 = 12$$

$$12 \div 4 = 3$$

I have used division to check my answer.

$$6 \times 2 = 12$$

I have done another multiplication sum.

1 0 2 2 0 2 2

Adding 3 single digit numbers

Key Vocabulary

- * Commutative Law
- * Inverse
- * number bonds
- * Partitioning & represent
- * Quotient
- * Addition
- * Multiplication

$$12 \div 3 = 4$$

Quotient

Dividend

Divisor

$$12 \div 6 = 2$$

Label
Data
PUH
Equal
Answer

2 flowers + 10 flowers = 12 flowers in total

$$10 + 2 =$$

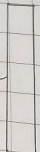
10 = 10 flowers

2 = 2 flowers

12 = Total flowers

12

10 flowers



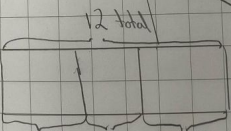
□ □ □ □ □ □ 2 flowers

flowers

In Focus



Can you add to find out how many flowers there are in total?



The quotient is 12 in total.

$$7 + 3 + 2 = 12$$

L = Label to work at this equation.

D = Data

? = Unknown

E = Equation

A = Answer

$$12 \div 4 = 3$$

Dividend

Divisor

Quotient

$$11 \text{ flowers} + 1 \text{ flower} = 12 \text{ flowers}$$

$$12 \text{ flowers in total} \div 1 \text{ pot} = 12$$

$$\text{or } 1 \times 12 = 12$$

7 pink flowers + 3 red flowers + 2 blue flowers equals will give the answer quotient to 12.

$$4 \text{ flowers in each pot} \times 3 \text{ pots} = 12 \text{ or } 12 \div 3 = 4$$

This is commutative law and the numbers switch but not the answer. This only work addition and multiplication.

Example

9	x	2	=	18
2	x	9	=	18
10	+	4	=	14
4	+	10	=	14

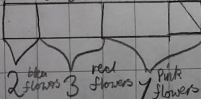
10.2.22

Adding 3 single digit numbers

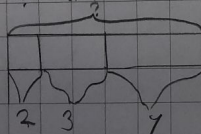
Bar Model

Label ✓
Daba
? Unknown
Equation
Answer

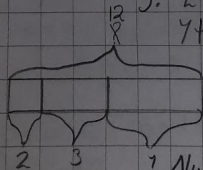
1: Label and Daba



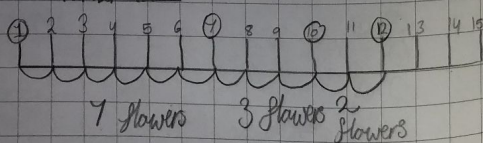
2: ? unknown



3: Equation
 $7 + 3 + 2 = 12$



Number lines



Explain as if
+ or repeated
addition

12 ÷ dividend - number you are dividing by.
3 - divisor - number you are dividing by.
4 - quotient - our answer is 12.

Richy addition

$$3 + 2 = 5$$

$$5 + 7 = 12$$

Repeated addition

Take 2 flowers from the pink flowers and add them to the blue flowers. Take one pink flower and add it to the red flowers, now there are 11 in each set.

Now you try
Number Bonds
 $4 + 4 = 8$
 $4 + 3 = 10$
 $10 + 2 = 12$
our answer is 12.

In Focus



Can you add to find out how many flowers there are in total?

Column Method

$$\begin{array}{r} 4 \\ + 3 \\ \hline 10 \end{array} \quad \begin{array}{r} 10 \\ + 2 \\ \hline 12 \end{array}$$

Inverse

$$7 + 3 = 10$$

$$3 + 7 = 10$$

$$10 + 2 = 12$$

$$2 + 10 = 12$$

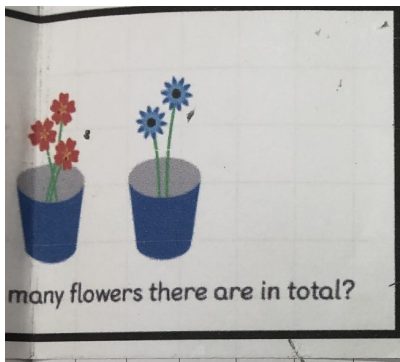
Counting in 1's

1	2	3	4	8	9	11
5	6	7		10		12

7 + 3 =

10 + 2 =

1	2	3	4
5	6	7	8
9	10	11	12

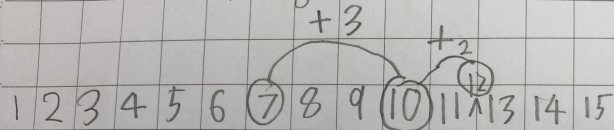


I used the column method and added all the numbers and did the inverse to see if I'm correct.

$$\begin{array}{r}
 3 \quad 5 \quad 12 \quad 012 \quad 12 \\
 +2 \quad +2 \quad +7 \quad -7 \quad -5 \\
 \hline
 5 \quad 12 \quad 5 \quad 07
 \end{array}$$

~~11~~ 4 10 2 22

Adding 3 single digit numbers



Here we have a number line. We started at 7 because of the pot with 7 flowers. Then we added 3, then 2. Our result was 12.

In Focus

10.02.29

Adding 3 single digit numbers

Partitioning

$$2 + 2 + 2 = 6$$

$$5 + 1 = 6$$

$$6 + 6 = 12$$

Number Bonds:

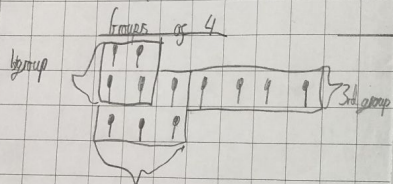
$$0 + 10 = 5 + 5$$

$$1 + 9 = 6 + 4$$

$$2 + 8 = 7 + 3$$

$$3 + 7 = 8 + 2$$

$$4 + 6 = 9 + 1$$



2nd group

$$4 \times 2 = 8$$

$$8 + 4 = 12$$

I split the 3 groups of flowers into 4 because after I timed the 4 to the 2 I knew that my last group would tell my answer. Also, I knew it had to be 3 groups because I can't do 4×4 since that would be too many groups. We only have 3 groups.

In Focus



Can you add to find out how many flowers there are in total?

Multiplication = Inverse

$$6 \times 2 = 12$$

$$2 \times 6 = 12$$

$$4 \times 4 = 16$$

$$4 \times 2 = 8$$

$$2 \times 4 = 8$$

Quotient
Divisor

$$12 \div 4 = 3$$

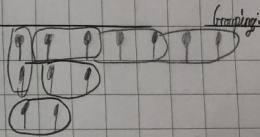
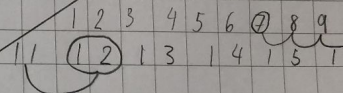
Dividend

Quotient

Number line

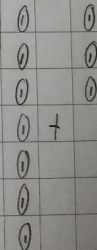
$$7 + 3 = 10$$

$$10 + 2 = 12$$



I am separating all these flowers groups of 2. There are now 6 groups. $2 \times 6 = 12$ There are 12.

Counters:



$$10 + 2 = 12$$

Year 5

In Focus



Can you add to find out how many flowers there are in total?

Why have they ordered the flowers 7, 3, 2? *

My problem question:



60kg



45kg

How much is 1 bowling ball in kg? How much is 1 beach ball? How much is 1 bowling ball + 1 beach ball? How much kg are all the balls altogether?

Explanation:

There are 12 bowling balls and they are all 60kg altogether. So to find out 1 bowling ball, we need to do $60 \div 12 = 5$. 1 bowling ball is 5 kg. There are 9 beach balls and they are 45kg altogether. So we need to do $45 \div 9 = 5$. Each beach ball is 5kg as well. Together, a bowling ball and a beach ball = $5 + 5 = 10$ kg. They make 10 kg. To find out the amount of them altogether, we need to do $60 + 45 = 105$.



This pot has 7 flowers inside. They are all pink, and they are the flowers with the biggest amount.

There are 3 red flowers inside of the pot. They are the flowers with the medium amount.



They have put 7 flowers and then 3 flowers, because they like children. This is also because $7 + 3 = 10$. That way it will be easier to add the other 2. $10 + 2 = 12$. Easy, right? If we do $5 + 7 = 12$, and $7 + 2 = 9$. It will be harder for small children. ✓

The last pot has only 2 flowers. This pot is the best amount of flowers. English



$$\begin{array}{r} 60 \\ + 45 \\ \hline 105 \end{array}$$



Another way we can make
the flowers to be added
up is by using fractions.
If we add up all of the
flowers, you will get 12.

So your denominator is 1-
2. Depending on how
many flowers, that will
be your denominator. 3

flowers will be $\frac{12}{3}$. 2 flowers will be $\frac{12}{12}$.

Will be $\frac{2}{12}$, and so on. So...

$$\frac{4}{12} + \frac{3}{12} + \frac{2}{12} = \frac{12}{12}$$

This last pot has only
2 flowers. This pot
has the last amount
of flowers ~~added~~



In Focus



Can you add to find out how many flowers there are in total?

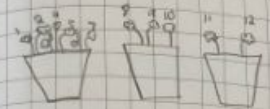
There are the least amount of blue flowers

There are the most amount of pink flowers
 There are 12 flowers altogether
 We need to rearrange the answer in 10
 $7 + 3 = 10$
 so it's easier because you can just add
 The pots are going from biggest to smallest
 because it's easier to add from biggest to smallest
 We need to add total answers add

What is the link between 7 and 3?
 $7 + 3 = 10$ to make it easier

Methods

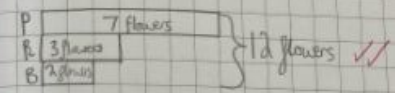
Method 1: Count



Method 2: Column Method

$$\begin{array}{r} 7 \\ + 3 \\ \hline 10 \end{array} \quad \begin{array}{r} 10 \\ + 2 \\ \hline 12 \end{array}$$

Method 3: Bar Model

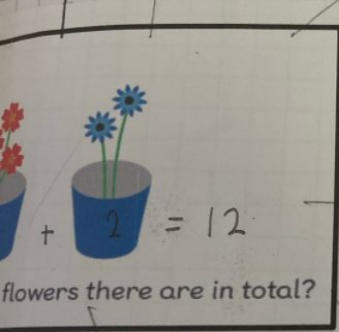


My own problems

1. Lucy One day, Lucy picked 1042 flowers in a field. The next day she picked 526 flowers in another field. The day after that she picked 5269 flowers from another field. Then she shared all the flowers with 6 friends. How many will each friend get?

$$\begin{array}{r} 5269 \\ + 526 \\ \hline 10495 \end{array} \quad \begin{array}{r} 10495 \\ + 01042 \\ \hline 11537 \end{array} \quad \begin{array}{r} 11537 \\ + 10495 \\ \hline 22032 \end{array} \quad \begin{array}{r} 3672 \\ 24052 \\ - 18000 \\ \hline 04032 \\ - 03600 \\ \hline 0432 \\ - 0420 \\ \hline 12 \\ - 12 \\ \hline 0 \end{array}$$

Everyone will get 3672 flowers each.



Mostly you work it out mentally

$$\begin{array}{|c|} \hline 7 \\ \hline \end{array} + \begin{array}{|c|} \hline 3 \\ \hline \end{array} + \begin{array}{|c|} \hline 2 \\ \hline \end{array} = 12$$

↑ This is the quietest method.

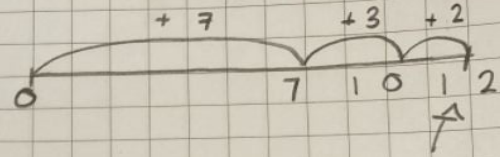
Number is a simple way to understand!

$$7 + 3$$

$$10 + 2 = 12$$

$$12$$

To show addition we can use number line.



12 is your answer.

We can use a tally; another visual method.



$$\begin{array}{l} ||| \\ || \\ ||| \end{array} = 3$$

$$|| = 2$$

$$|||| = 7$$

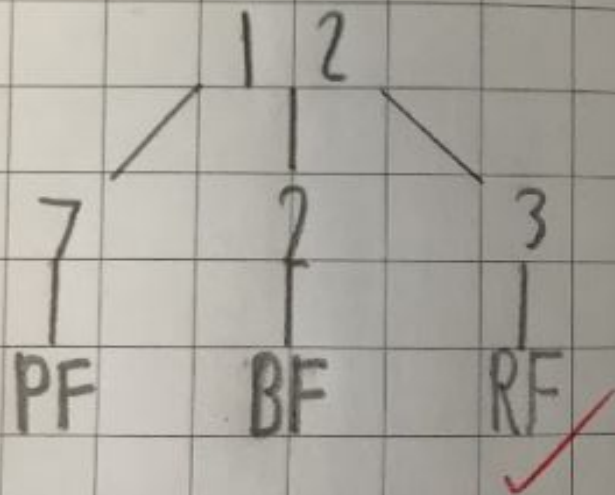
7	+	
3	+	
2	=	
12		

Year 6

$$\frac{7}{12} + \frac{3}{12} + \frac{2}{12} = \frac{12}{12}$$

$$\frac{7}{12} + \frac{1}{4} + \frac{1}{6} = \frac{12}{12} = 1$$

Partitioning



Order of Operations

$$\frac{7}{12} + \left(\frac{1}{6} + \frac{1}{4} \right) = 1 \quad \checkmark$$

$$\frac{1}{6} + \frac{7}{12} + \frac{1}{4} = 1$$

Decimals

0.5 8 3'
0.25 + 0.³08333... + 0.166̇ = 1

The dot in the thousandths column means the 6 continues forever.

Explanation

$$a + b = 10$$

$$a + c = 9$$

These are 2 equations. The difference between them is 1. ~~That~~ Since ~~the~~ ~~a~~ stayed the same the difference between ~~c~~ and ~~b~~ is one. $b + c = 5$ that means 1 one of them is 2 and the other one is 3. ✓

$$a + b = 10$$

$$a + c = 9$$

$$b + c = 5$$

$$a + b = 10$$

$$a + c = 9$$

$$b + c = 5$$

more

Percentages

25% ✓ of all the flowers are ~~blue~~ ^{red} ✓. I know this because $\frac{1}{4} = \frac{25}{100}$. On top of that, percentages are out of 100.

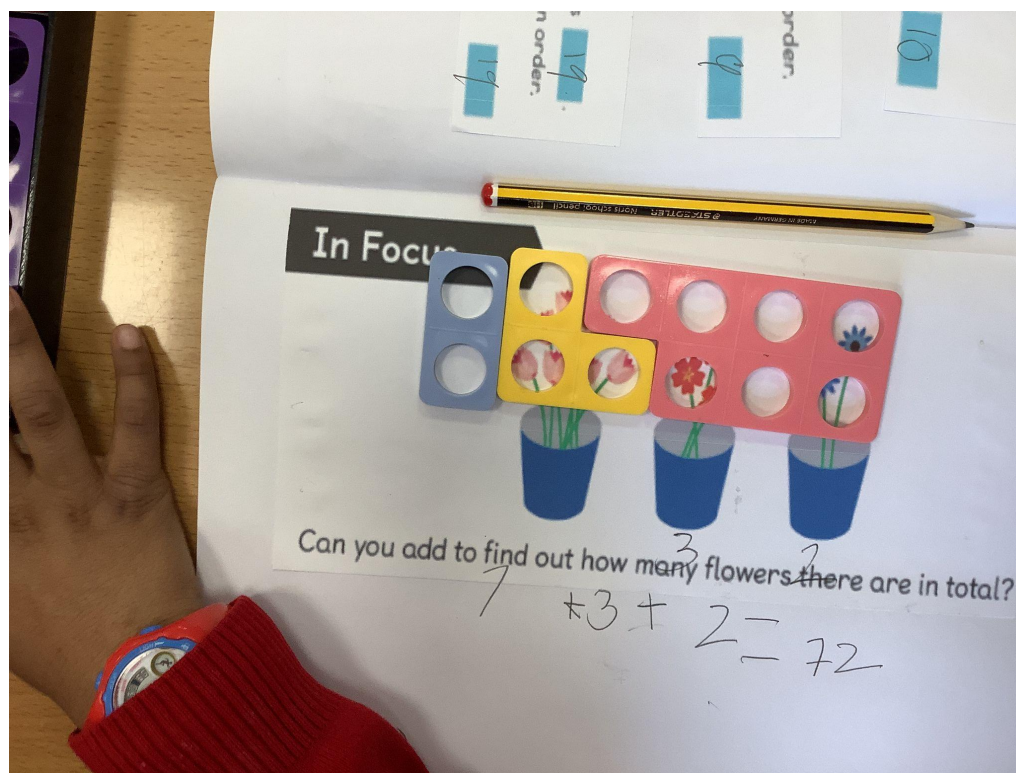
SEN



Ronnie was able to build each number using cubes and a tens frame.

He then counted on starting from the 7.

He could not recognise that the 3 and 7 made 10.



Ashfaq build the numbers using the Numicon. With support he could see that 7 and 3 made ten. He then counted on from 10 to get an answer of 12.