

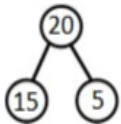
Year 2 Questions – Addition and Subtraction December 2018

Using concrete apparatus, can you talk about the relationships between the different flowers?



One relationship shown by this part whole model is $15 + 5 = 20$

Can you write all associated fact facts in the sentences below?



Look at the bar model below. Can you write all of the sentences in the fact family?



How can we use the following representation to prove $5 + 3 = 4 + 4$?



Fill in the missing symbols:

- | | | |
|----------|-----------------------|----------|
| $6 + 4$ | <input type="radio"/> | $6 + 5$ |
| $6 + 4$ | <input type="radio"/> | $3 + 6$ |
| $11 - 4$ | <input type="radio"/> | $12 - 5$ |
| $11 - 4$ | <input type="radio"/> | $12 - 4$ |

Fill in the missing numbers:

$$5 + 3 = 6 + \square$$

$$5 + 3 = \square + 6 = 7 + \square$$

$$\square + 3 = \square + 4 = 5 + 5$$

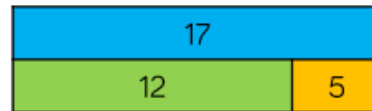
You could also do this for subtraction relationships.

Use concrete objects to check and prove whether the calculations are correct.

$$12 - 4 = 8$$

$$7 + 8 = 15$$

Can you use the inverse operation to check $5 + 12 = 17$?



How many possible inverse calculations are there?

Erin writes this calculation: $18 - 5 = 13$

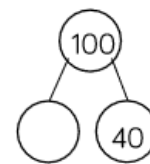
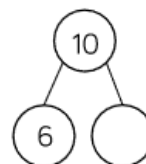
Which of the following could she use to check her work?

- | | |
|-----------|----------|
| $13 + 5$ | $13 - 5$ |
| $18 - 13$ | $5 + 13$ |

I have 3 blue pens and 4 black pens. Together I have 7 pens. Tom has 30 blue pens and 40 black pens. How many does he have in total?

Use concrete apparatus to show your thinking.

Complete the part whole models below:



Find the missing numbers in the related facts.

$5 + 4 = 9$	$8 = 3 + 5$	$4 = 10 - 6$
$50 + 40 = \square$	$80 = 30 + \square$	$40 = \square - 60$

Match the 10 frames to the sentences below:



One hundred equals eighty plus twenty

$100 = 100 + 0$

$40 + 60 = 100$

Fill in the missing numbers

$2 + 6 = 8$

$20 + 60 = \square\square$

$2\square + \square 0 = 80$

$80 = \square 0 + 6\square$

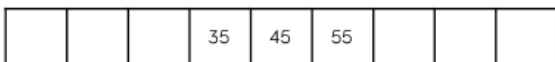
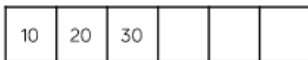
Continue the pattern

$90 = 100 - 10$

$80 = 100 - 20$

Can you make up a similar pattern starting with the numbers 60, 30 and 90?

Continue the number tracks below.



Using a 100 square, circle the number that is 10 more than 27.

Circle the number that is 10 less.

Repeat in different colours for different numbers.

Using apparatus, complete the missing boxes.

10 less		10 more
2	12	22
	37	

Create sentences based on the picture.



Example

There are 4 children playing in a park. One more child joins them so there will be 5 children playing together.

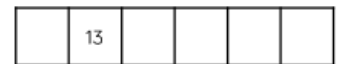
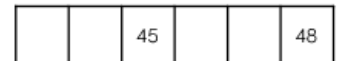
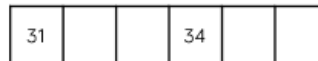
Continue the pattern

$22 = 29 - 7$

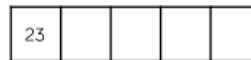
$22 = 28 - 6$

Can you create an addition pattern by adding in ones and starting at the number 13?

Continue the number tracks below.



Continue the number track by adding 20 each time..



Use the place value charts and concrete materialsto complete the calculations.

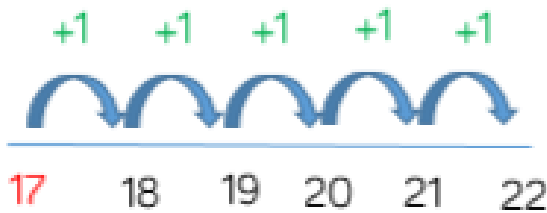
Tens	Ones

$$\begin{array}{r} 23 \\ + 40 \\ \hline \end{array}$$

Tens	Ones

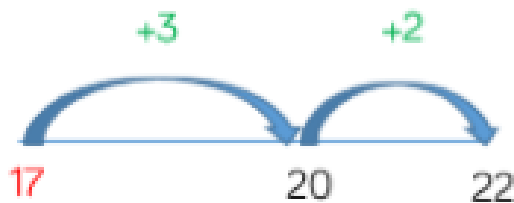
$$\begin{array}{r} 56 \\ - 30 \\ \hline \end{array}$$

$17 + 5 =$



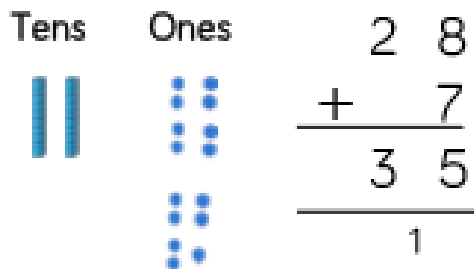
Can you put the larger number in your head and count on the smaller number? Start at 17 and count on 5

Can we use number bonds to solve the addition more efficiently?



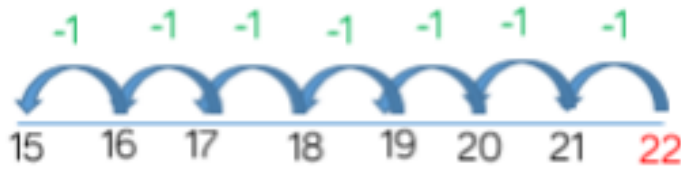
We can partition 5 into 3 and 2 and use this to bridge the 10

Find the total of 28 and 7



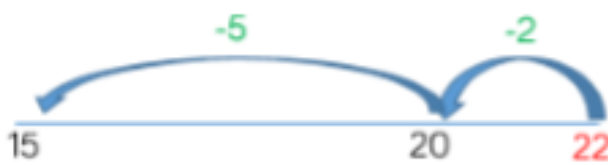
- Partition both the numbers.
- Add together the ones.
- Have we got 10 ones?
- Exchange 10 ones for 1 ten.
- How many ones do we have?
- How many tens do we have?

1 $22 - 7 =$



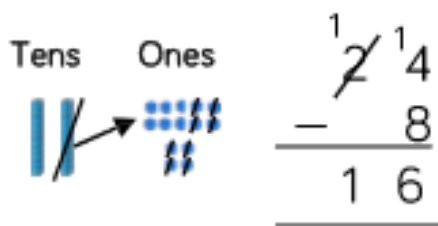
Can you put the larger number in your head and count back the smaller number? Start at 22 and count back 7

2 Can we use number bonds to subtract more efficiently?



We can partition 7 into 5 and 2 and use this to bridge the 10

3 Subtract 8 from 24



- Can we take 8 ones away?
- Exchange one ten for ten ones.
- Take away 8 ones.
- Can you write this using the column method?

Find the sum of 34 and 23



$$78 \text{ minus } 34 = \square$$

$$8 \text{ ones} - 4 \text{ ones} = \square$$

$$7 \text{ tens} - 3 \text{ tens} = \square$$

We have \square tens and \square ones.

$$64 + 12 =$$

$$4 \text{ ones} + 2 \text{ ones} = \square$$

$$6 \text{ tens} + 1 \text{ ten} = \square$$

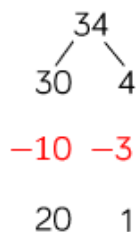
$$\square \text{ tens} + \square \text{ ones} = \square$$

Hamza has 41 sweets.

Jemima has 55 sweets.

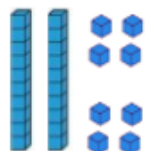
How many sweets do they have altogether?

$$34 - 13 =$$



- Partition the number 34.
- Partition 13 and subtract the ones and the tens.
- Place the partitioned number back together.

Subtract 13 from 28



$$\begin{array}{r} 28 \\ -13 \\ \hline 15 \end{array}$$

Use the number line to subtract 12 from 51.



51

Can you subtract the ones first and then the tens?
Can you partition the ones to count back to the next ten and then subtract the tens?

Use a 100 square.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- 40 squares are shaded, how many are not shaded?
- 45 squares are shaded, how many are not shaded?
- 54 squares are shaded, how many are not shaded?

$$42 - 15 =$$

$$\begin{array}{r} 42 \\ -10 \quad -5 \\ \hline \end{array}$$

We can't subtract the ones. Can we partition differently?

$$\begin{array}{r} 42 \\ -10 \quad -5 \\ \hline 20 \quad 7 \end{array}$$

Now we can subtract the ones and then subtract the tens.
 $42 - 15 = 27$

Hamza is making 100 with base 10

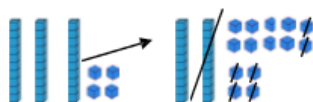
How much more does he need if he has:



- 5 tens and 3 ones
- 37

Children could place their base 10 on top of a 100 piece to help calculate.

Take 16 away from 34



$$\begin{array}{r} \cancel{3} 4 \\ -16 \\ \hline 18 \end{array}$$

$$25 + \square = 100$$

$$\square + 69 = 100$$

$$100 - 84 = \square$$

$$100 - \square = 11$$

Use ten frames and counters to add the numbers

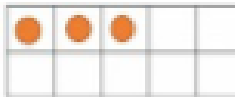
$$4 + 3 + 6$$



Can you add the numbers in a different way to find a number bond to 10?



$$4 + 6 = 10$$



$$10 + 3 = 13$$

Find the totals of each row and column.

5	4	2	<input type="text"/>
3	7	8	<input type="text"/>
5	7	3	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	

Use $<$, $>$ or $=$ to compare the number sentences.

$$5 + 4 + 6 \bigcirc 6 + 5 + 4$$

$$7 + 3 + 8 \bigcirc 7 + 7 + 3$$

$$9 + 2 + 5 \bigcirc 8 + 3 + 5$$

$$8 + 4 + 2 \bigcirc 2 + 5 + 8$$