

16.11.20

# Add 2 digit and 1 digit numbers



# Fluency

First of all practise counting in 3s from 0 to 36. Can you count back from 36 to 0. Then complete these questions.

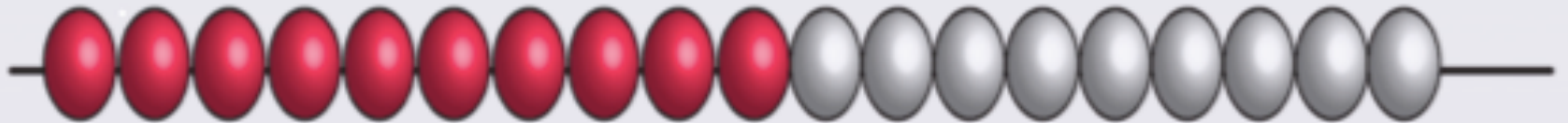
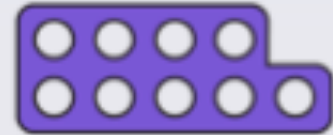
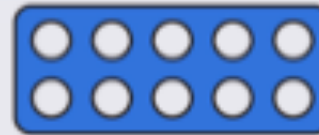
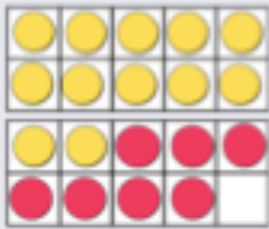
1	$7 + 7 = \underline{\quad}$	/1
2	One more than 15 is $\underline{\quad}$ .	/1
3	$20 = \underline{\quad} + 17$	/1
4	$100 - \underline{\quad} = 20$	/1
5	$4 + 4 + 6 = \underline{\quad}$	/1



Show one calculation as a part whole model and create a fact family for another calculation.

# Anchor Task

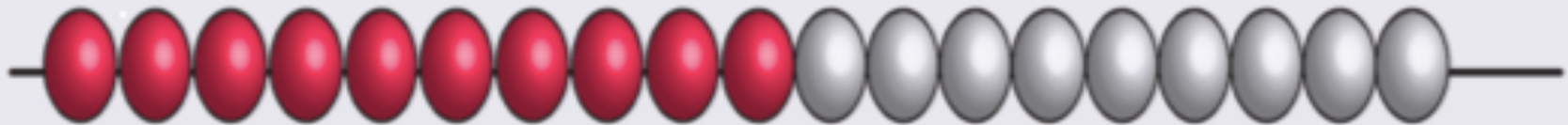
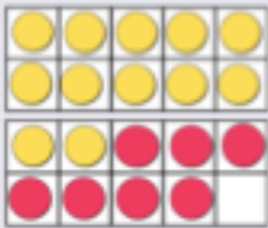
Which one doesn't belong?



Explain your answer.

# Anchor Task

Which one doesn't belong?



Explain your answer.


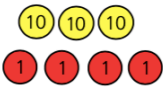

Although all of the representations above show 19, the 20 Frame (two 10 Frames) with counters doesn't belong as it shows 12 and 7, whereas the Numicon Shapes and number bead string both show 10 and 9 making 19.

# Vocabulary

Number – Place Value Year 2

## Tens and Ones

A 2-digit number has tens and ones.



Tens	Ones
3	4

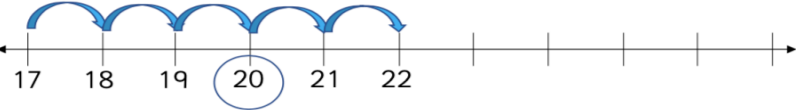
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Addition & Subtraction Year 2

## Crossing 10

Going past a multiple of 10 when you are adding or subtracting.

$17 + 5 = 22$



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Addition & Subtraction Year 2

## Calculation

Working out the answer to a maths problem.

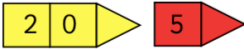


$4 + 5 = 9$  $10 - 5 = 5$  $20 - 4 = 16$

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Number – Place Value Year 2

## Partition

To split/ separate/ divide numbers into smaller parts.  
This can make calculations easier.



You can also partition smaller numbers.



Addition & Subtraction Year 2

## Efficient

Working in a way without wasting time.

$18 + 6 =$

An efficient way of adding would be to count on from 18 instead of starting from 0.

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# Recap

Write out your number bonds in an ordered list – just like we did last week. Now use what you know about your number bonds to complete the sequence on the right.

When you have done that create your own sequence.

$$\begin{aligned}30 + 10 &= 40 \\31 + 9 &= 40 \\32 + \underline{\quad} &= 40 \\33 + \underline{\quad} &= 40 \\34 + \underline{\quad} &= 40 \\35 + \underline{\quad} &= 40 \\36 + \underline{\quad} &= 40 \\37 + \underline{\quad} &= 40 \\38 + \underline{\quad} &= 40 \\39 + \underline{\quad} &= 40\end{aligned}$$



Explain the link between  $31 + 9 = 40$  and  $1 + 9 = 10$ . What's the same? What's different?



# Recap

Can you see how I have used my number bonds to complete the sequence. So if I know that  $1 + 9 = 10$ , I also know that  $31 + 9 = 40$ . 10 and 40 are both multiples of 10

$$\begin{aligned}30 + 10 &= 40 \\31 + 9 &= 40 \\32 + 8 &= 40 \\33 + 7 &= 40 \\34 + 6 &= 40 \\35 + 5 &= 40 \\36 + 4 &= 40 \\37 + 3 &= 40 \\38 + 2 &= 40 \\39 + 1 &= 40\end{aligned}$$



Explain the link between  $31 + 9 = 40$  and  $1 + 9 = 10$ . What's the same? What's different?



# Think about it

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In today's lesson, you will be adding a two-digit number and a one-digit number. You will use partitioning to help you add numbers that cross the tens boundary. What does partitioning mean?





# Think about it

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Partitioning means splitting a number into smaller parts. Our bond to 10 are examples of partitioning because each pair makes 10.



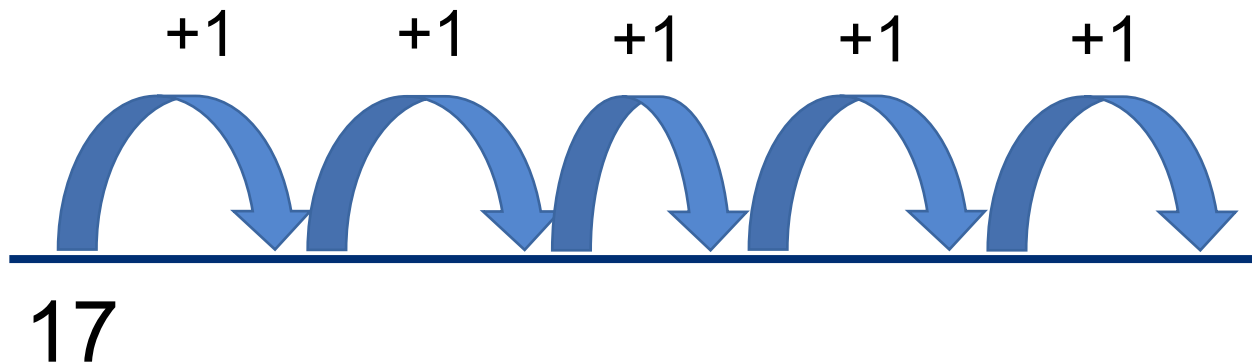
Can you write out all the pairs of numbers that make 6?  
Can you write it as an ordered list?



# Activity 1

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

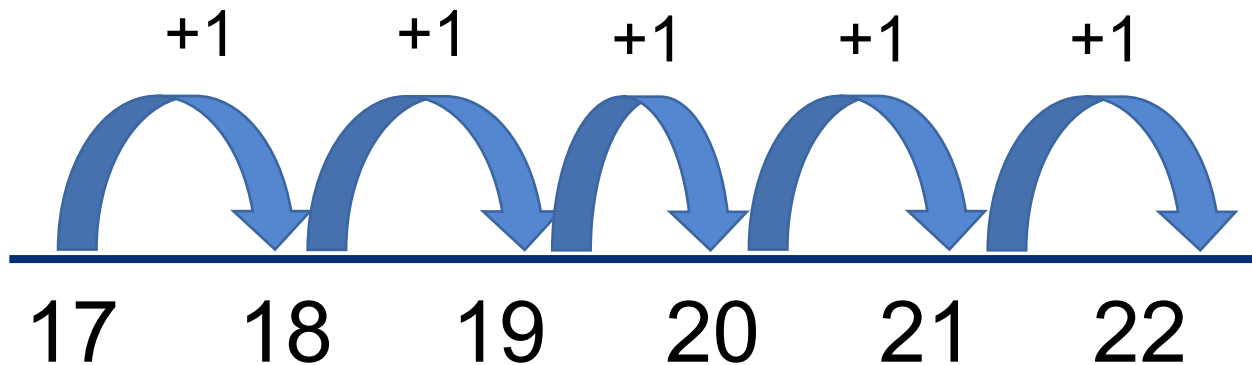
$$17 + 5 =$$



# Activity 1

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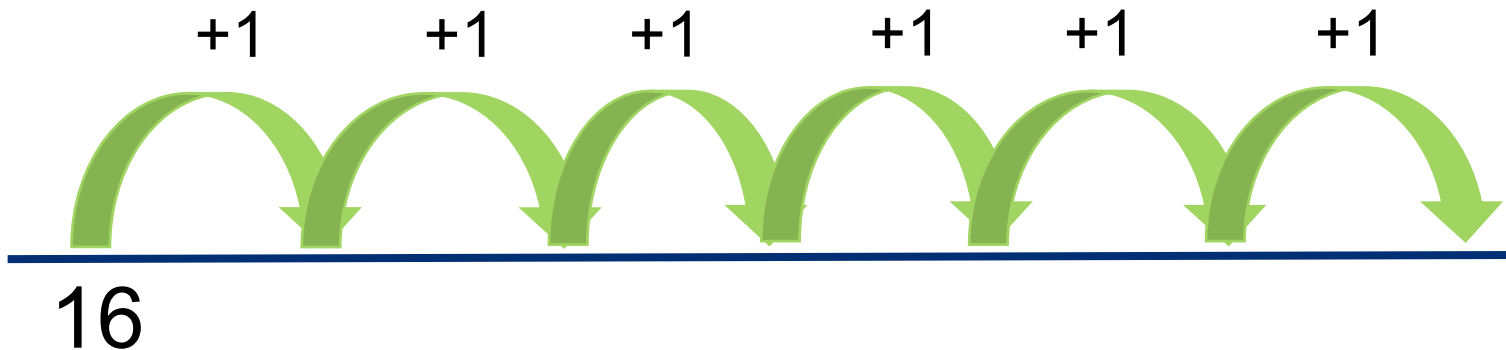
$$17 + 5 =$$



# Activity 1

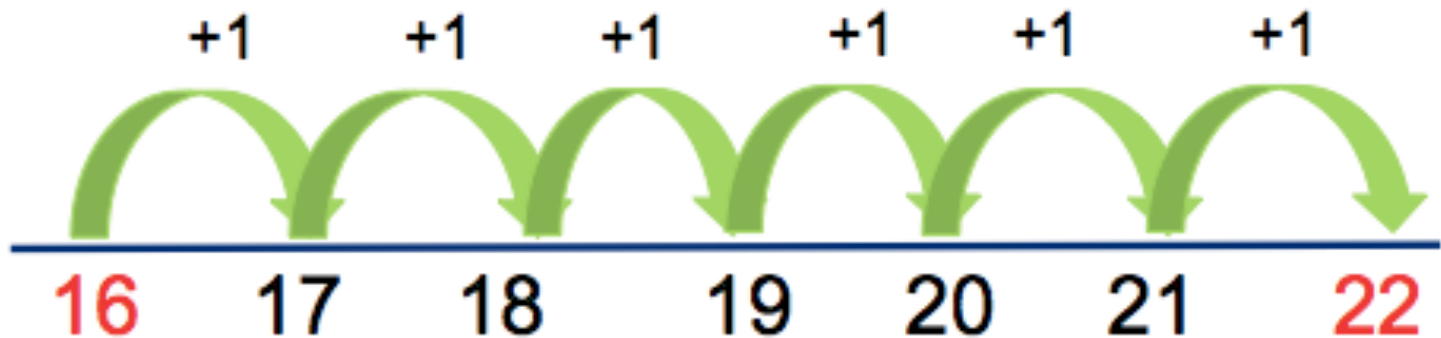
Can you put the larger number in your head and count on the smaller number? Start at 16 and count on 6.

$$16 + 6 =$$



# Answer

$$16 + 6 = 22$$

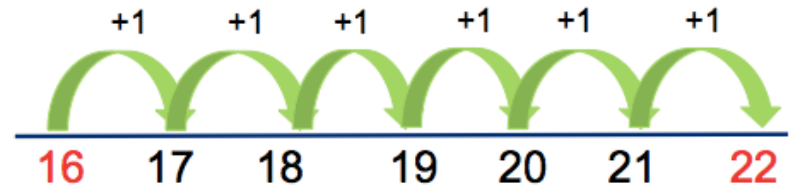


Can you see how I've made each jump touch the number on the number line?

# Your Task



$$16 + 6 = 22$$



Solve these calculations by jumping on in 1s:

Remember to draw a number line and show each jump of 1

$$56 + 7 =$$

$$48 + 5 =$$

$$88 + 4 =$$

$$37 + 7 =$$

$$16 + 8 =$$



Show a Fact Family for 3 of the calculations.

# Answer

Solve these calculations by jumping on in 1s

Did you draw a number line? Did you show each jump?

$$56 + 7 = 63$$

$$48 + 5 = 53$$

$$88 + 4 = 92$$

$$37 + 7 = 43$$

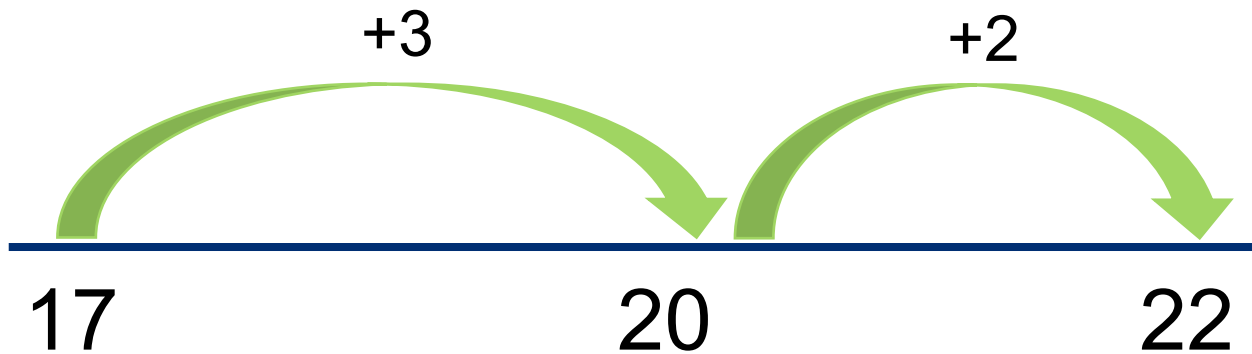
$$16 + 8 = 24$$



## Activity 2

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.

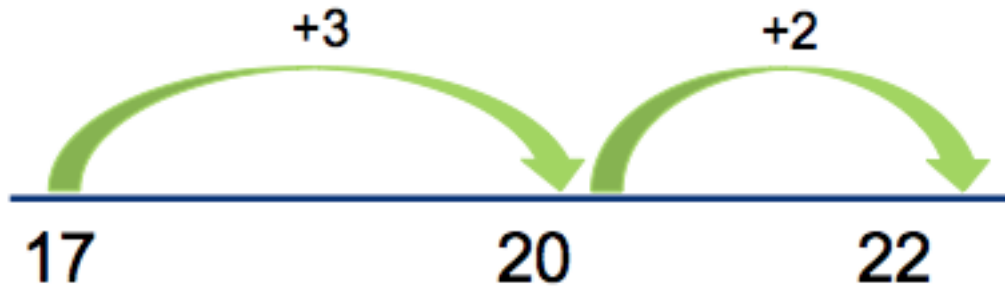
$$17 + 5 =$$





# Answer

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$$17 + 3 = 20$$

$$20 + 2 = 22$$

**So,**

$$17 + 5 = 22$$



# Activity 2

Can we use number bonds to solve the addition more efficiently by using just 2 jumps?

$$16 + 6 =$$



# Activity 2

What's the next multiple of 10 after 16?

$$16 + 6 =$$



**Remember:** multiples of 10 end in 0



# Activity 2

That's right! It's 20. Let's add that to our number line.

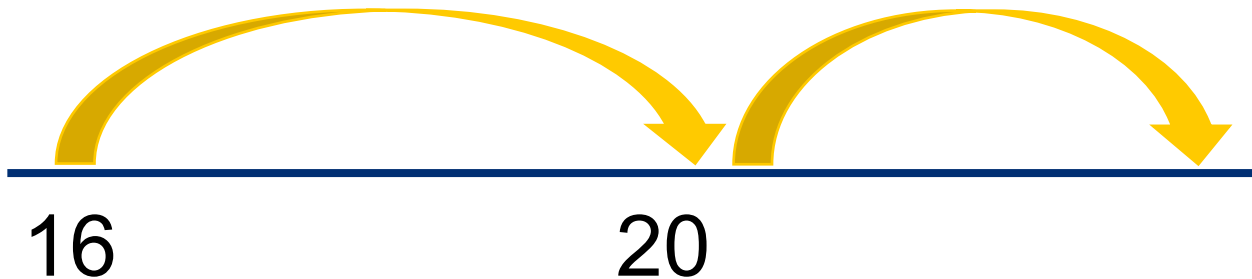
$$16 + 6 =$$



# Activity 2

So how many of my 6 ones do I need to use to jump from 16 to 20?

$$16 + 6 =$$



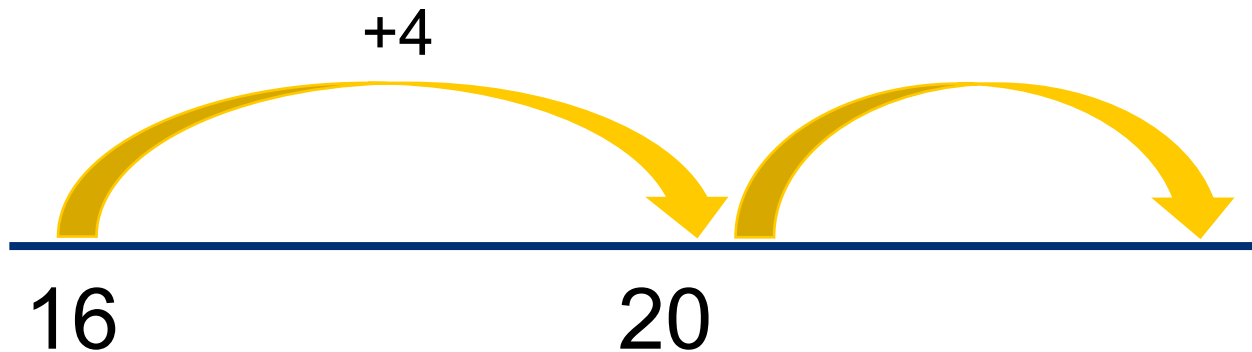
## Activity 2

I know that  $6 + 4$  is 10 so 16 add 4 must be 20. So I need to use 4 of my 6 ones to make the jump to 20.



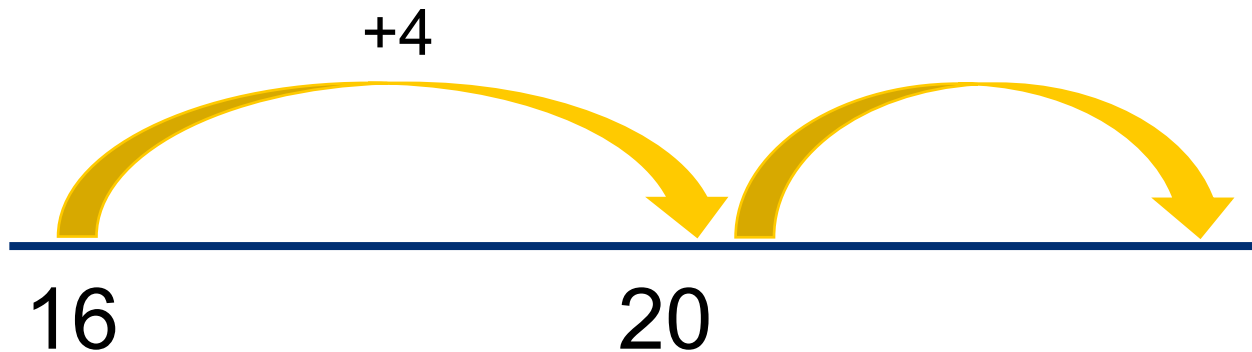
# Activity 2

I know that  $6 + 4$  is 10 so 16 add 4 must be 20. So I need to use 4 of my 6 ones to make the jump to 20.



# Activity 2

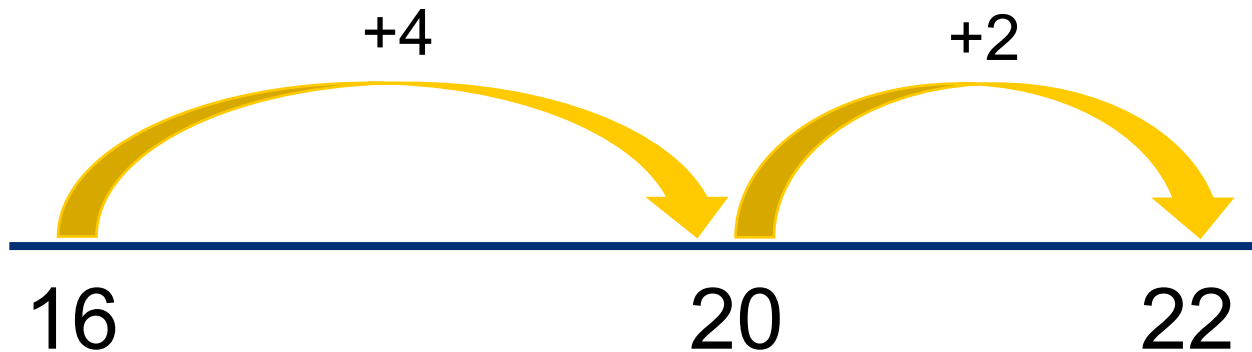
Now I have 2 out of my 6 ones left. I need to add those on to find the total of  $16+6$ .





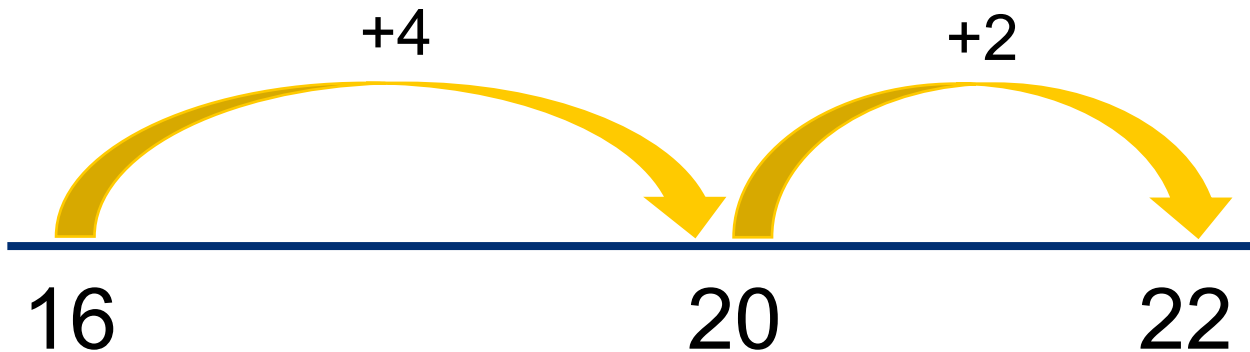
# Activity 2

If I add my 2 remaining ones to 20 I have a total of 22. So  $16 + 6 = 22$ .



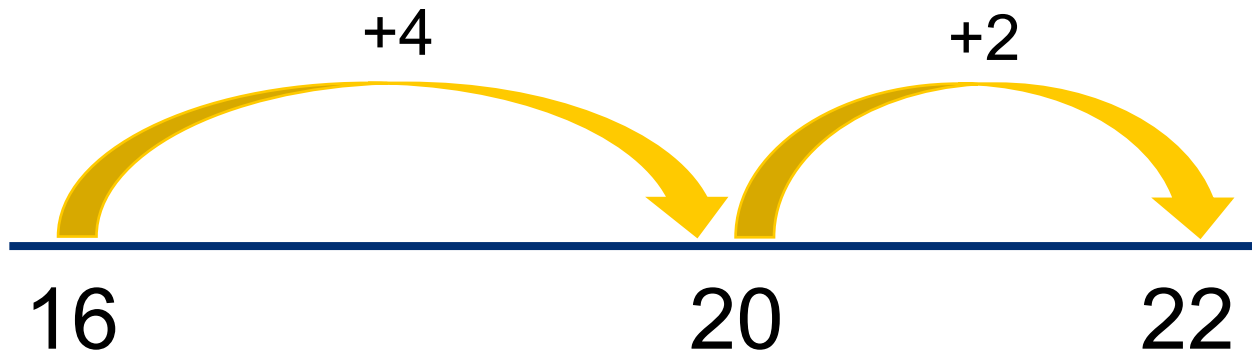
# Activity 2

Can you see how I've solved  $16 + 6$  by partitioning the 6 into 4 and 2 then calculating  $16 + 4$  which is the same as 20. Then calculating  $20 + 2$  to find the total of 22.



# Activity 2

Can you see how I've solved  $16 + 6$  by partitioning the 6 into 4 and 2 then calculating  $16 + 4$  which is the same as 20. Then calculating  $20 + 2$  to find the total of 22.



$$16 + 4 = 20$$

$$20 + 2 = 22$$

So,

$$16 + 6 = 22$$



# Activity 2

Can you see how I've solved  $16 + 6$  by partitioning the 6 into 4 and 2 then calculating  $16 + 4$  which is the same as 20. Then calculating  $20 + 2$  to find the total of 22.



$$16 + 4 = 20$$

$$20 + 2 = 22$$

So,

$$16 + 6 = 22$$

Have a look at Mrs Riley's 'Adding on a number line' video using the link on our remote learning page.



# Your Task

1. Count on from the **biggest number**. Jump to the next multiple of ten and then jump on.

Add 2-digits and 1-digit ☆☆☆

Fluency & Precision 2

Solve the calculations by counting on from the larger number.

$17 + 8 = \underline{\quad}$

$3 + 49 = \underline{\quad}$

$27 + 7 = \underline{\quad}$

$6 + 87 = \underline{\quad}$

$36 + 6 = \underline{\quad}$

$8 + 73 = \underline{\quad}$

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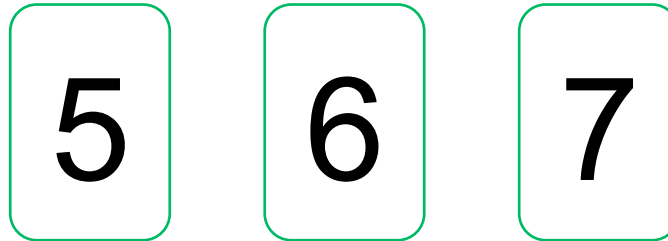
2. Use your knowledge of number bonds.



A copy of the sheet is on the next page. Remember, you don't need to print anything; you can write your answers on paper. **But you must draw a number line and only make 2 jumps.**

# Reasoning

Here are three digit cards. Place the digit cards in the number sentence.



$$\square + \square = \square$$

How many different totals can you find?  
What is the smallest total? What is the largest total?

# Reasoning

Do your answers match mine?

5

6

7

$$56 + 7 = 63$$

$$57 + 6 = 63$$

$$65 + 7 = 72$$

$$67 + 5 = 72$$

$$75 + 6 = 81$$

$$76 + 5 = 81$$

63 is the smallest and 81 is the largest.



# Your Task



Write a number story for two of these calculations.

Solve the calculations by counting on from the larger number.

$$17 + 8 = \underline{\hspace{2cm}}$$



$$3 + 49 = \underline{\hspace{2cm}}$$



$$27 + 7 = \underline{\hspace{2cm}}$$



$$6 + 87 = \underline{\hspace{2cm}}$$



$$36 + 6 = \underline{\hspace{2cm}}$$



$$8 + 73 = \underline{\hspace{2cm}}$$





# Extra Challenge

Don't forget that I'm looking to see how you have used your number bonds.



Use the number line to solve the calculations.  
Show the use of your number bonds to solve it efficiently.

$17 + 8 = \underline{\hspace{2cm}}$



$3 + 79 = \underline{\hspace{2cm}}$



$67 + 7 = \underline{\hspace{2cm}}$



$35 + 6 = \underline{\hspace{2cm}}$



$99 + 4 = \underline{\hspace{2cm}}$



$92 + 9 = \underline{\hspace{2cm}}$



# Answers

Use the number line to solve the calculations.  
Show the use of your number bonds to solve it efficiently.

$17 + 8 = \underline{25}$

$3 + 79 = \underline{82}$

$67 + 7 = \underline{74}$

$35 + 6 = \underline{41}$

$99 + 4 = \underline{103}$

$92 + 9 = \underline{101}$

Solve the calculations by counting on from the larger number.

$17 + 8 = \underline{25}$

$3 + 49 = \underline{52}$

$27 + 7 = \underline{34}$

$6 + 87 = \underline{93}$

$36 + 6 = \underline{42}$

$8 + 73 = \underline{81}$

Did you  
use your  
number  
bonds?



Well done Year 2. You are fantastic. I can't wait to see your work. Please send it to me using our new class e-mail:

[year2@st-jo-st.dudley.sch.uk](mailto:year2@st-jo-st.dudley.sch.uk)

