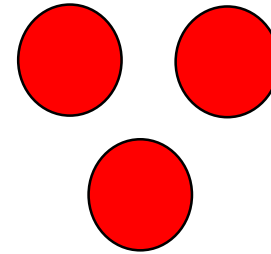
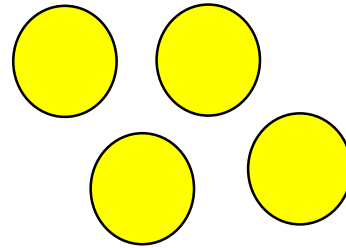


Use the diagram and counters to tell your own number story for these calculations:

$$0 + 12 = \underline{\quad}$$

$$7 + 0 = \underline{\quad}$$

$$14 + \underline{\quad} = 17$$



First

Then

Now

Mo and Jack are working out $11 + 7$

Mo says,



11, 12, 13, 14, 15, 16, 17

Jack says,



12, 13, 14, 15, 16, 17, 18

Use a number line to show who is correct

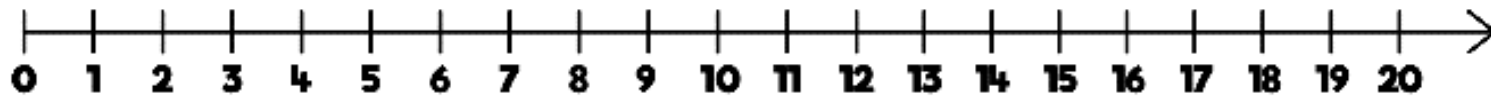
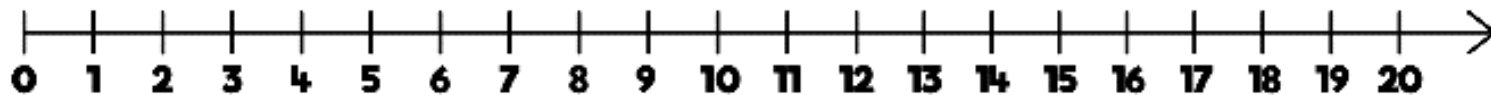
Ron starts at 9 and adds on 5

Alex starts at 5 and adds on 9

Show their calculations on the number lines.

What do you notice? Does this always happen?

Which method do you like best? Why?



Use equipment to represent each of the calculations below.

What is the same?

What is different?

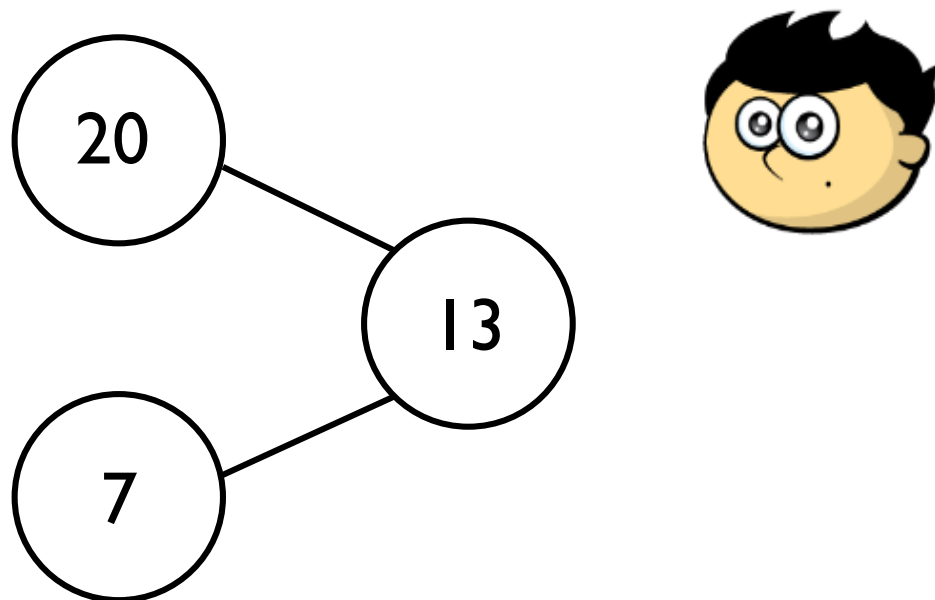
$$7 + 3 = 10$$

$$17 + 3 = 20$$

$$20 = 7 + 13$$

Explain your thinking.

Jack represents a number bond to 20 in the part whole model.



Can you spot his mistake?

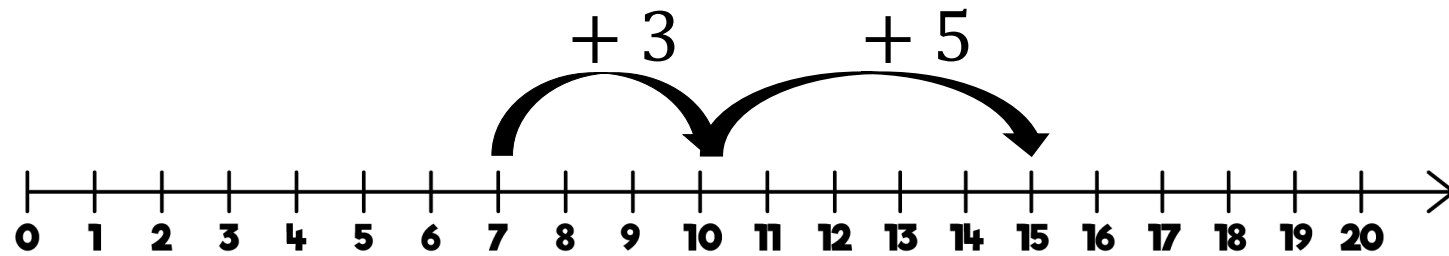
True or false?

There are double the amount of numbers bonds to 20 than there are number bonds to 10

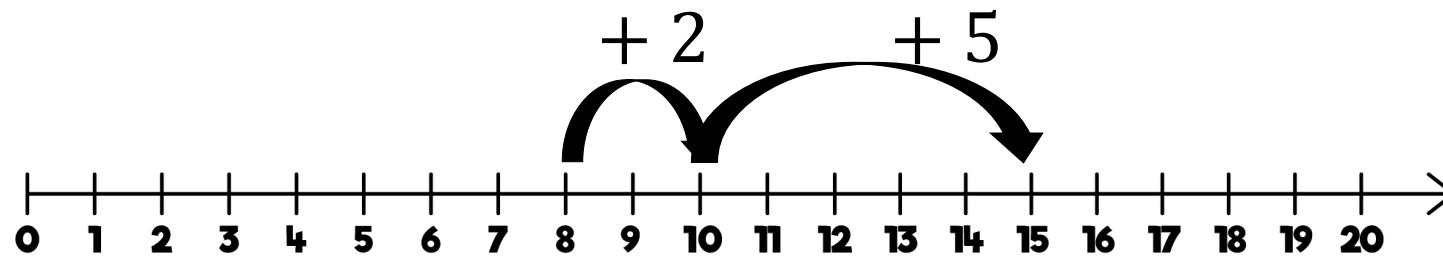
Prove it – can you use a systematic approach?

Teddy and Eva are adding together 7 and 8 using a number line.

Teddy shows it this way:

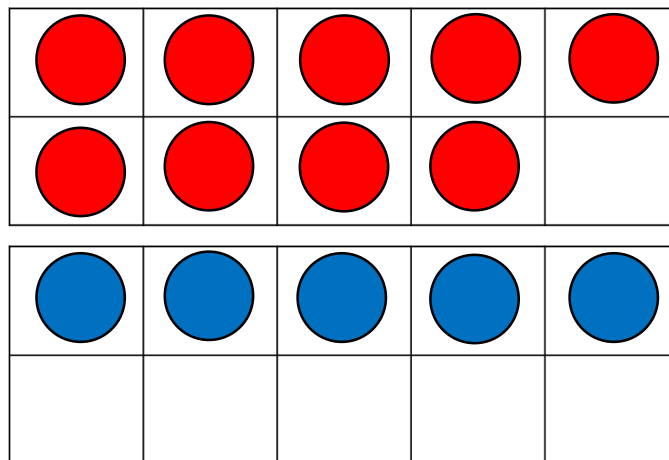


Eva shows it this way:



Who is correct? Explain your answer.

Dexter uses ten frames to calculate eight plus six.



He says,



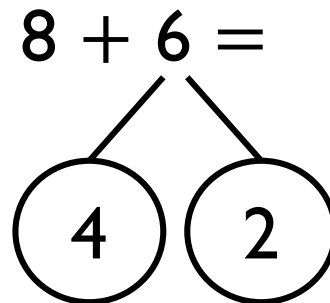
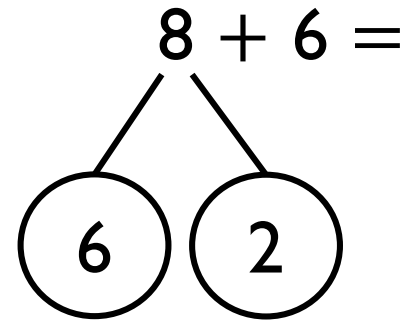
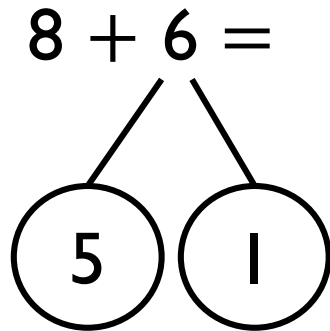
$$8 + 6 = 16$$

Do you agree? Explain why.


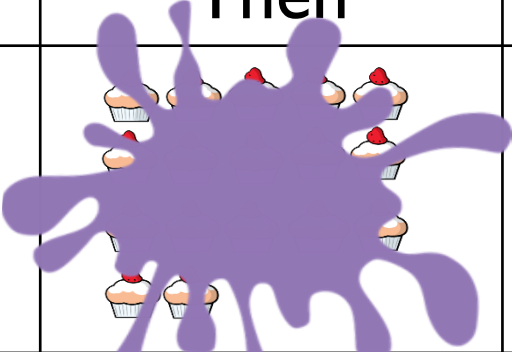

Annie is calculating $8 + 6$

Which of these methods is most helpful?

Why?



Annie, Tommy and Alex are working out which calculation is represented below.

First	Then	Now
		

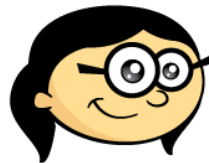
$$17 - 0 = 17$$



$$0 - 17 = 17$$



$$17 - 17 = 0$$



Can you work out who is correct? Explain why.

How many ways can you complete this number sentence?

Use the number line to help you.

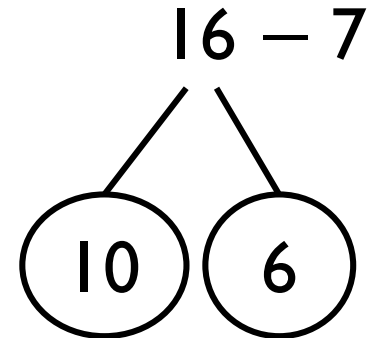
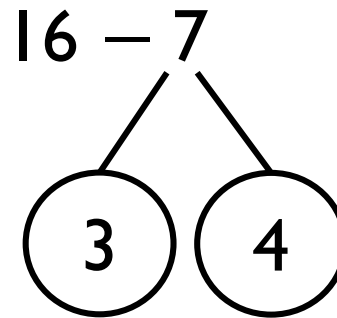
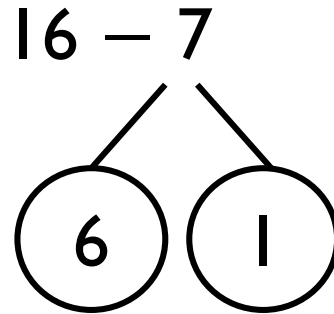
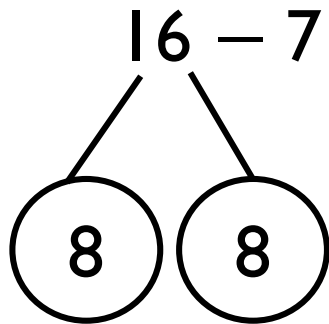


$$\square - \square = 11$$

Rosie is calculating $16 - 7$

Which of these methods is most helpful?

Why?



Could you find a way to partition 16 to help you subtract 7?

Teddy works out $15 - 6$

This is Teddy's working out:

$$15 - 5 = 10 - 1 = 9$$



Why is Teddy's working out wrong?

Use $<$, $>$ or $=$ to make the statements correct.

$$17 - 5 \bigcirc 12 - 5$$

$$14 - 4 \bigcirc 18 - 8$$

$$11 - 7 \bigcirc 11 - 4$$

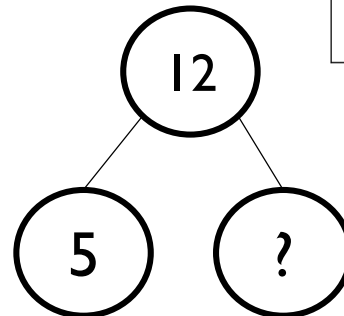
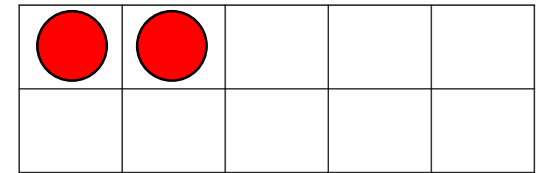
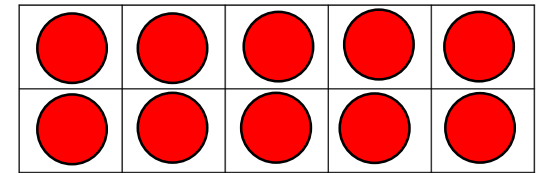
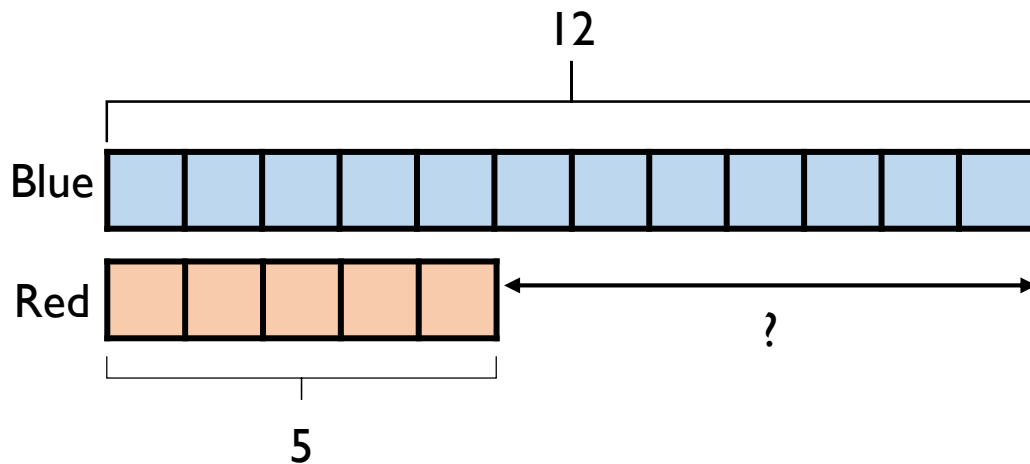
Is Whitney correct? Explain how you know.

Which method would you use to solve each problem?

Max has 12 balloons.
5 of the balloons burst.
How many are left?

Max has 12 balloons.
5 of the balloons are red.
The rest are blue.
How many blue balloons does Max have?

Max has 12 blue balloons and 5 red balloons.
How many more blue balloons than red balloons does he have?

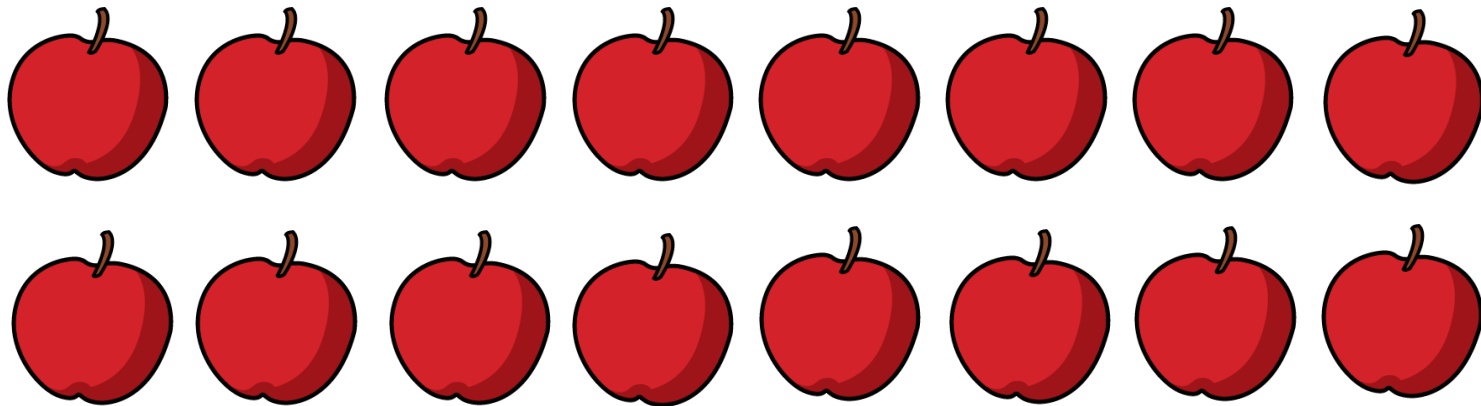


Amir has 16 apples. Ron has none.

Amir gives Ron 9 apples.

Who has the most apples now?

Explain how you know.



Look at the following objects.



Teddy works out these calculations.

$$15 - 4 = \underline{\quad}$$

$$15 - 11 = \underline{\quad}$$

$$11 - 4 = \underline{\quad}$$

What question could he have asked each time?

Use the cards to write as many addition and subtraction sentences as you can.

nine

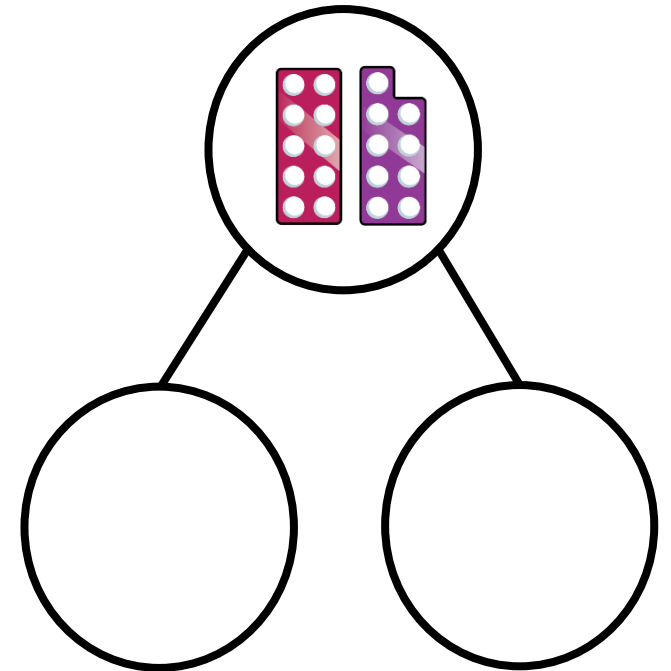
add

ten

subtract

nineteen

is equal to



Circle the addition and subtraction number sentences that match the ten frames.

$15 + 3 = 18$

$15 - 3 = 18$

$3 + 18 = 15$

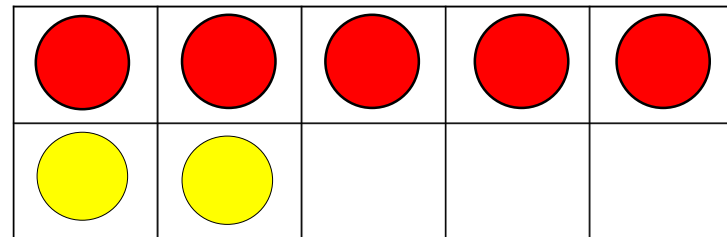
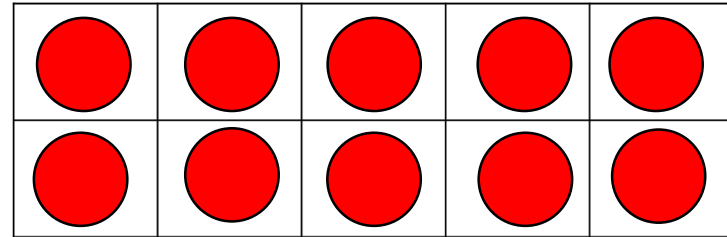
$18 - 15 = 3$

$18 + 3 = 15$

$18 - 3 = 15$

$18 = 3 + 15$

$15 - 18 = 3$





Alex

Any number less than 11
would make this correct.

$$7 + 11 < 7 + \underline{\quad}$$

Do you agree with Alex?

Explain why.



Whitney has 16 sweets and eats 7 of them.

Mo has 17 sweets and eats 8 of them.



Who has more sweets left?

Explain how you know.

Dexter is working out which symbol to use to compare the number sentences.

$$14 - 5 \bigcirc 14 + 5$$



The missing symbol must be = because all of the numbers are the same.

Do you agree with Dexter?
Explain why.