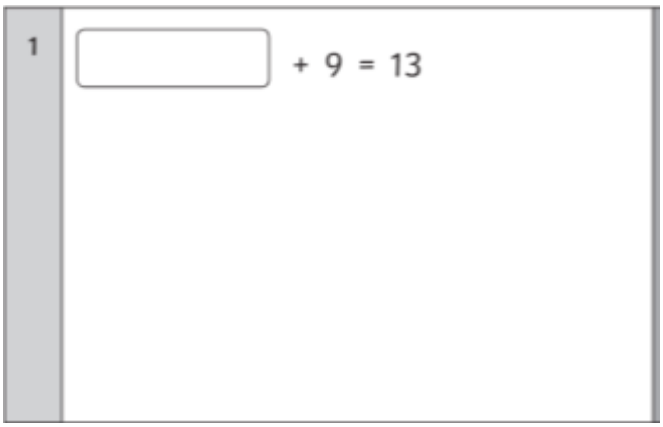
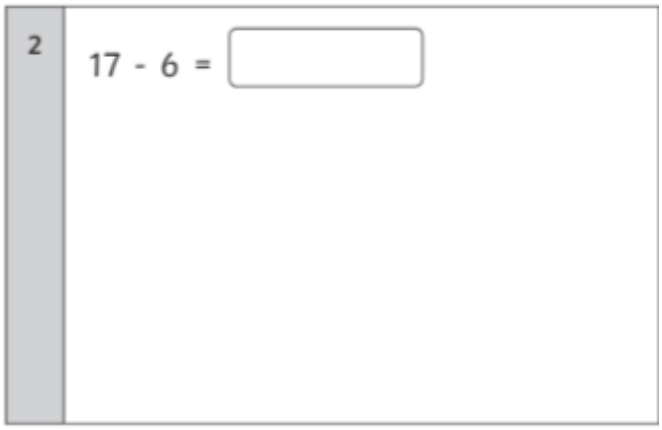
Examples of mental arithmetic strategies.

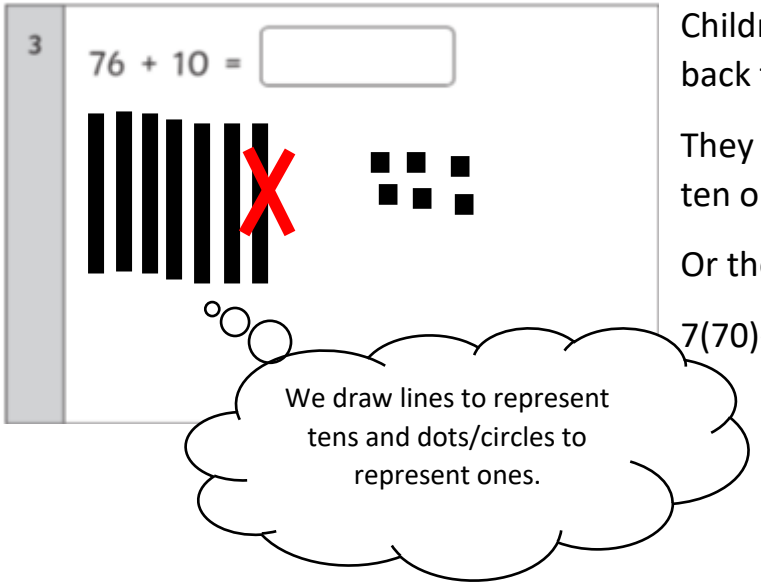


Put 9 in your head and count forward till you get to 13.



Put 17 in your head and count backward 6 times.

Or the children may realise 7-6=1 and add the ten to make 11.

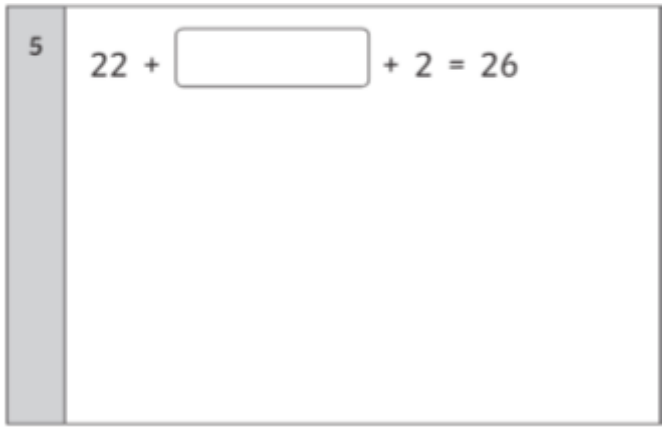


Children may put 76 in their head and count back ten.

They may also draw 76 as shown and cross one ten out to make 66.

Or they may make a link between numbers:

7(70)-1(10)=6(60)



The children sometimes become confused with a missing number problem where the number is in the middle. They may try to do

22 + ____ = 26, forgetting the 2 that is also there.

Encourage them to add 22+2 first then count on to find 26.

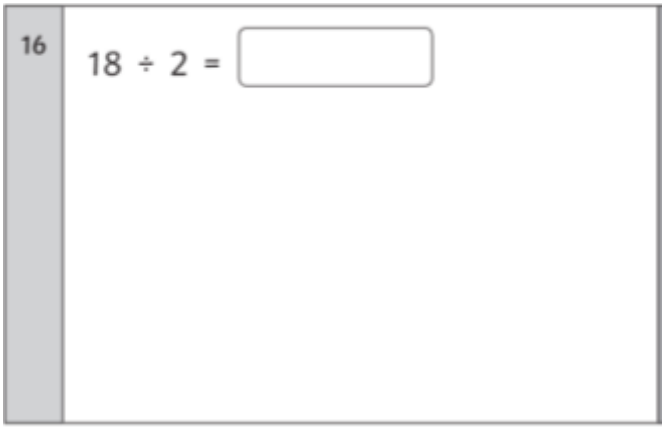
There is a couple of ways to encourage children to solve this. They could draw out the tens and ones to visualise the numbers and find the total.

Or group the tens and ones together. Recognise they can quickly add 20+10=30, then 5+7=12.

So, 30+10+2=42

With any times table question, remind the children they can count in 2s, 5s or 10s to solve the problem.

With x10, they may realise that 10x6 also means 6 tens, making 60.

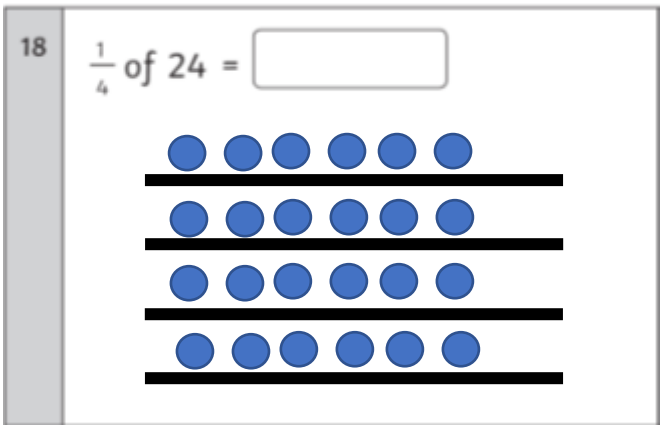


With any division question, remind the children they can divide by counting in 2s, 5s or 10s till they reach that number. EG: count in 2s and stop at 18. How many times did you count in 2s to get to 18?

With this style of question, the children may be confused by the missing number being at the beginning.

Remind them that division and multiplication are linked so they can do the opposite operation here.

5 x 8 = 40, so the answer would be 40.

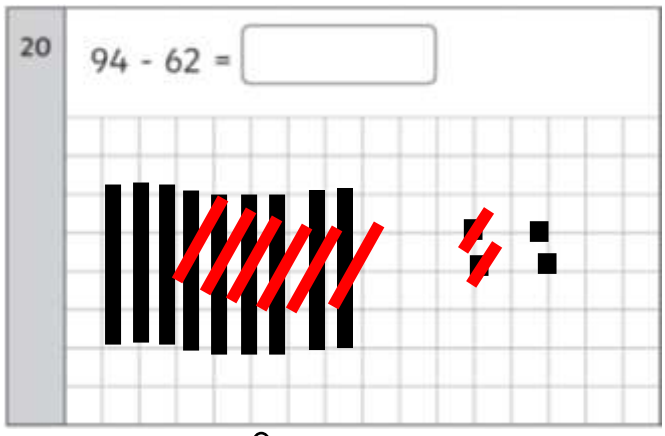


If there is a fraction question to find half of a number, the children may just recall halving facts quickly and need no method to work it out.

If not, remind the children the denominator (bottom number) is what you need to share the number into.

So 24 shared into 4 equal groups and circle one of those groups – see drawing.

We draw lines to represent how many groups the fraction is then share the number out by drawing circles, **one by one.**



Some of the questions will have a blank or squared working out space which can throw the children.

With this question, there are a lot of steps to work out the answer.

The children maybe able to do it mentally, noticing number links 90(9) – 60(6) = 30(3), then 4 – 2 = 2. S0, 30+2=32

We draw lines to represent tens and dots/circles to represent ones.

Remind the children, even though they don't know the missing number, they can solve this by doing 60-23, which they can draw or solve mentally.

60-20=40

40-3=37