

Diving into Mastery - Diving

Adult Guidance with Question Prompts

Children should understand that the addition of three one-digit numbers can be done in any order. They should look for number bonds to ten and use the facts they know to help them solve the calculation efficiently.

How can we make our calculating more efficient?

Can you think of any number facts you already know which you could use?

How will using number bonds to ten make these quicker to calculate?

Can you ring the two numbers that make ten?

What will you do next?

Does it matter if the number bonds to ten aren't next to each other in the calculation?

Why not?

If I changed the order of the numbers, what would happen to the answer?

Add Three 1-Digit Numbers



Add each set of three numbers, putting a ring around the number bonds to 10 to speed up your working.

$$2 + 3 + 7 = \square$$

$$4 + 6 + 2 = \square$$

$$5 + 8 + 5 = \square$$

$$8 + 4 + 2 = \square$$

$$5 + 9 + 1 = \square$$

$$7 + 3 + 9 = \square$$

$$1 + 1 + 9 = \square$$

$$6 + 6 + 4 = \square$$

$$7 + 2 + 8 = \square$$



Diving into Mastery - Deeper

Adult Guidance with Question Prompts

Children need to recognise the symbols =, < and > for this activity. They should use their number bonds to ten to help them calculate efficiently, where possible. They will be able to use the number bonds within ten that they learnt in year 1 to help.

What do the symbols =, <, and > mean?

Can number bonds to ten help us with all these calculations?

Why not?

Can our number bonds within ten help us?

How?

Which are true?

Can you prove it?

Which are false?

How do you know?

Add Three 1-Digit Numbers



True or false?

$$3 + 7 + 6 = 17$$

$$5 + 4 + 5 = 14$$

$$9 + 3 + 2 > 12$$

$$1 + 8 + 2 < 15$$

$$6 + 8 + 5 = 5 + 5 + 7$$

$$8 + 5 + 3 < 8 + 1 + 2$$

$$6 + 4 + 7 > 3 + 4 + 5$$

Explain how you know.



Diving into Mastery - Deepest

Adult Guidance with Question Prompts

Children investigate finding all the ways of making ten by adding three single-digit numbers. Encourage systematic working and recording. Children may find it helpful to represent the balloons practically, for example with ten cubes split into three piles.

How many balloons are there in total?

How many bags?

Can we put all the balloons in one bag?

How can we split the ten balloons between the three bags?

How do you know you have found all the ways?

Can you check you have not written the same one twice?

Can you explain how you worked systematically?

Is $1 + 4 + 5$ different to $5 + 4 + 1$?

Why not?

Add Three 1-Digit Numbers



I have 3 party bags to fill and 10 balloons. Each bag must have at least 1 balloon.



Find all the different ways of sharing the 10 balloons between the 3 bags.

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