Discussion Problems
Step 3: Add 3-Digit and 1-Digit Numbers

National Curriculum Objectives:

Mathematics Year 3: (3C1) **Add and subtract numbers mentally, including three-digit number and ones**

About this resource:

This resource has been designed for pupils who understand the concepts within **this step**. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More **Year 3 Addition and Subtraction** resources.

Did you like this resource? Don't forget to **review** it on our website.

Add 3-Digit and 1-Digit Numbers

1. Judith is making number sentences to practise exchanging ones and tens.

Explore all the possible addition number sentences that can be made using the digit cards below, where one exchange is needed.

6	**5**	**3**	**9**

Find 2 possible addition number sentences where two exchanges are needed.

DP

2. Class 3B earn table points from Miss Binns. The table points they start with on Monday and end with on Friday are shown in the two tables below.

Monday Morning	
Lions	451
Tigers	387
Leopards	409
Panthers	424

Friday Afternoon	
Lions	481
Tigers	415
Leopards	440
Panthers	450

Miss Binns' rules:

No more than 9 points per table each day.

No table should receive the same daily total during a week.

Complete the grid to show the number of table points they could have received each day.

Table Name \ Day	Mon	Tues	Weds	Thurs	Fri
Lions		8		5	
Tigers	7				9
Leopards	3		9		
Panthers		6			9

DP

Discussion Problems – Add 3-Digit and 1-Digit Numbers – Year 3

Add 3-Digit and 1-Digit Numbers

1. Judith is making number sentences to practise exchanging ones and tens.

Explore all the possible addition number sentences that can be made using the digit cards below, where one exchange is needed.

6	5	3	9

There are fourteen possible answers:
653 + 9;   659 + 3;   635 + 9;
639 + 5;   563 + 9;   569 + 3;
539 + 6,   536 + 9;   365 + 9;
369 + 5;   356 + 9;   359 + 6;
935 + 6;   936 + 5.

Find 2 possible addition number sentences where two exchanges are needed.
Various answers, for example: 395 + 6 and 396 + 5

DP

2. Class 3B earn table points from Miss Binns. The table points they start with on Monday and end with on Friday are shown in the two tables below.

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Complete the grid to show the number of table points they could have received each day. **Various answers, for example:**

Table Name \ Day	Mon	Tues	Weds	Thurs	Fri
Lions	**6**	8	**7**	5	**4**
Tigers	7	**3**	**4**	**5**	9
Leopards	3	**5**	9	**8**	**6**
Panthers	**1**	6	**3**	**7**	9

DP

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Discussion Problems – Add 3-Digit and 1-Digit Numbers ANSWERS