

Discussion Problems

Step 1: Decimals up to 2 d.p

National Curriculum Objectives:

Mathematics Year 5: (5F8) [Read, write, order and compare numbers with up to three decimal places](#)

Mathematics Year 5: (5F10) [Solve problems involving number up to three decimal places](#)

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 5 Decimals and Percentages](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Decimals up to 2 d.p

1. Solomon has 30 place value counters in total to place on his place value chart. Within the counters there is a mixture of ones, tenths and hundredths. He says,



The tenths counters is greater than 10.
The total number of hundredths counters is a multiple of 4.
I have an odd number of ones counters.

Explore the different combinations of counters he may have and the number they will create.

Ones	Tenths	Hundredths
	•	

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DP

2. Write two suitable headings to complete the Carroll diagram, then create 2 different numbers with 2 decimal places for each section.

Hundredths column is a multiple of 3		
Hundredths column is not a multiple of 3		

Digit cards can be used more than once.

6	0	1	9	2	5	3
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DP

Decimals up to 2 d.p

1. Solomon has 30 place value counters in total to place on his place value chart. Within the counters there is a mixture of ones, tenths and hundredths. He says,



The tenths counters is greater than 10.
The total number of hundredths counters is a multiple of 4.
I have an odd number of ones counters.

Explore the different combinations of counters he may have and the number they will create. **Various answers, for example:**

Ones	Tenths	Hundredths
3 ones	19 tenths	8 hundredths

$$= \boxed{4.98}$$

DP

2. Write two suitable headings to complete the Carroll diagram, then create 2 different numbers with 2 decimal places for each section.

Various answers, for example:

	Ones column is odd	Ones column is even
Hundredths column is a multiple of 3	5.19 9.03	2.06 6.13
Hundredths column is not a multiple of 3	5.02 3.21	6.91 2.15

Digit cards can be used more than once.

6	0	1	9	2	5	3
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DP