Reasoning and Problem Solving
Step 2: Write Decimals

National Curriculum Objectives:

Mathematics Year 4: (4F6b) Recognise and write decimal equivalents of any number of tenths or hundredths
Mathematics Year 4: (4F10b) Solve simple measure and money problems involving fractions and decimals to two decimal places

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Read four statements about a number with one decimal point. Determine which two statements are true, and explain why the other two statements are false.
Expected Read four statements about a number with two decimal points. Determine which two statements are true, and explain why the other two statements are false.
Greater Depth Read four statements about a number with two decimal points. Determine which two statements are true, and explain why the other two statements are false. Statements include more complex descriptions of tenths and hundredths.

Questions 2, 5 and 8 (Problem Solving)
Developing Given four or five counters, find the biggest and smallest number it is possible to make on a place value grid with one decimal place.
Expected Given seven or eight counters, find the biggest and smallest number it is possible to make on a place value grid with two decimal places.
Greater Depth Given thirteen or sixteen counters, find the biggest and smallest number it is possible to make on a place value grid with two decimal places.

Questions 3, 6 and 9 (Reasoning)
Developing A number with one decimal place is partitioned two ways. Determine which is correct and why.
Expected A number with two decimal places is partitioned two ways. Determine which is correct and why.
Greater Depth A number with two decimal places is unconventionally partitioned two ways. Determine which is correct and why.

More Year 4 Decimals resources.

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

Write Decimals

1a. Which statements are true? Explain why the false statements are incorrect.

6.1

a. The number has one decimal place.
b. The number has six tenths.
c. The number has seven ones.
d. The number has one tenth.

D PS

Write Decimals

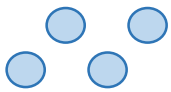
1b. Which statements are true? Explain why the false statements are incorrect.

3.8

a. The number has two decimal places.
b. The number has three ones.
c. The number has eight tenths.
d. The number has three tenths.

D PS

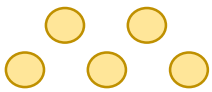
2a. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths

D PS

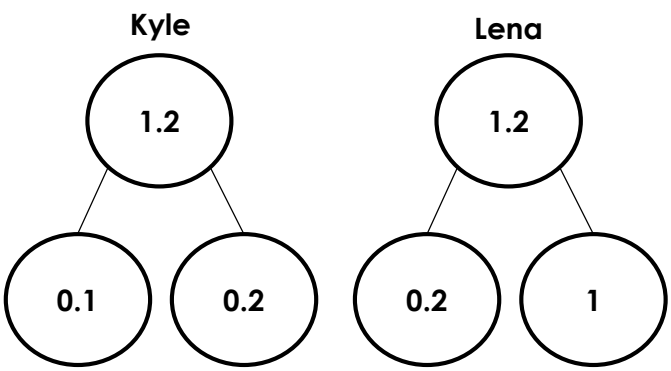
2b. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths

D PS

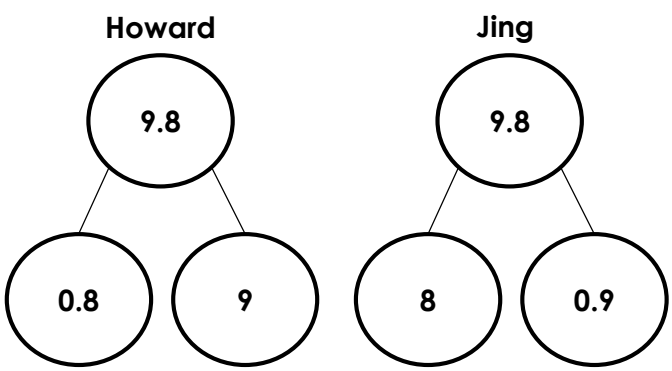
3a. Kyle and Lena are partitioning a number.



Who is correct? Explain why.

D R

3b. Howard and Jing are partitioning a number.



Who is correct? Explain why.

D R

Write Decimals

4a. Which statements are true? Explain why the false statements are incorrect.

4.02

a. The number has one decimal place.
b. The number has two hundredths.
c. The number has four ones.
d. The number is less than 4.

E PS

Write Decimals

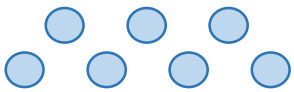
4b. Which statements are true? Explain why the false statements are incorrect.

2.43

a. The number has two decimal places.
b. The number has four hundredths.
c. The number has 43 tenths.
d. The number has three hundredths.

E PS

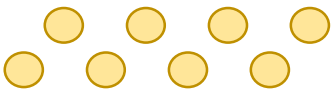
5a. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths	Hundredths

E PS

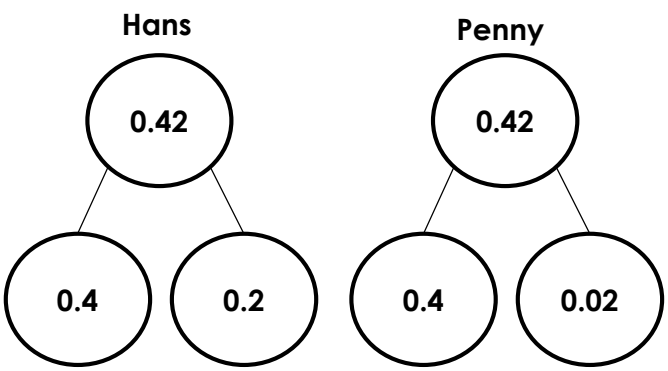
5b. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths	Hundredths

E PS

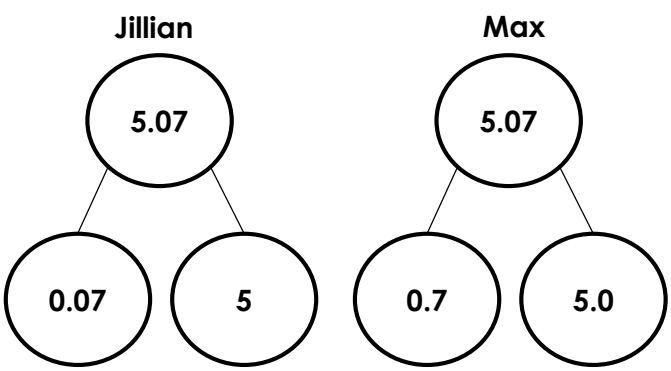
6a. Hans and Penny are partitioning a number.



Who is correct? Explain why.

E R

6b. Jillian and Max are partitioning a number.



Who is correct? Explain why.

E R

Write Decimals

7a. Which statements are true? Explain why the false statements are incorrect.

5.26

a. The number has three decimal places.
b. The number has twenty-six hundredths.
c. The number has two tenths.
d. The number has six tenths.

GD PS

Write Decimals

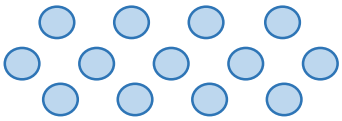
7b. Which statements are true? Explain why the false statements are incorrect.

14.09

a. The number has four decimal places.
b. The number has nine tenths.
c. The number has 140 tenths.
d. The number has nine hundredths.

GD PS

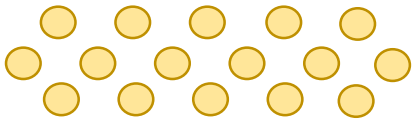
8a. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths	Hundredths

GD PS

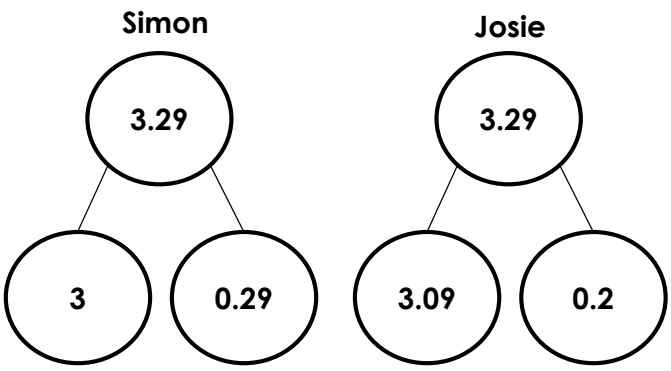
8b. What is the greatest number you can make? What is the smallest number you can make? You need to use all the counters and have a counter in each column.



Ones	Tenths	Hundredths

GD PS

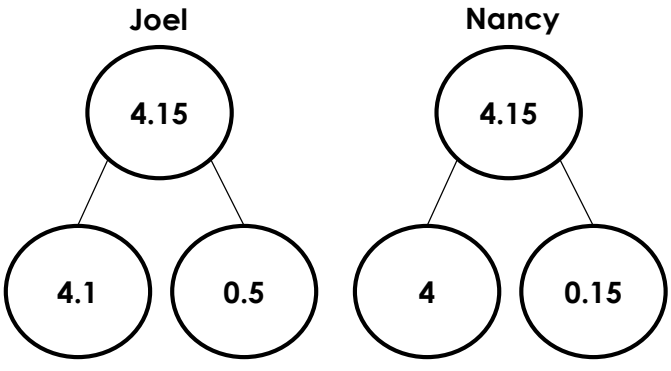
9a. Simon and Josie are partitioning a number.



Who is correct? Explain why.

GD R

9b. Joel and Nancy are partitioning a number.



Who is correct? Explain why.

GD R

Reasoning and Problem Solving
Write Decimals

Developing

1a. A and D are true. B and C are false because the number as 6 ones and 1 tenth.

2a. 3.1 and 1.3

3a. Lena is correct. Kyle has partitioned the number into 1 tenth and 2 tenths.

Expected

4a. B and C are true. A is false because the number has two decimal places. D is false because the number is 0.02 greater than 4.

5a. 5.11 and 1.15

6a. Penny is correct. Hans has partitioned the number into 4 tenths and 2 tenths instead of 2 hundredths.

Greater Depth

7a. B and C are true. A is false because the number has two decimal places and D is false because the number has 6 hundredths and 2 tenths.

8a. 11.11 and 1.39

9a. They are both correct.

Reasoning and Problem Solving
Write Decimals

Developing

1b. B and C are true. A is false because the number has one decimal place and D is false because the number has 3 one and 8 tenths.

2b. 4.1 and 1.4

3b. Howard is correct. Jing has swapped the values of the tenths and ones digits.

Expected

4b. A and D are true. B and C are false because the number has four tenths and 3 hundredths (43 tenths would be 4.3).

5b. 6.11 and 1.16

6b. Jillian is correct. Max has partitioned the number into 5 ones and 7 tenths instead of 7 hundredths.

Greater Depth

7b. C and D are true. A is false because the number has two decimal places and B is false because the number has nine hundredths.

8b. 14.11 and 1.69

9b. Nancy is correct. Joel has partitioned the number into 5 tenths instead of hundredths.