Understand place value for decimals

1 Some numbers have been made on place value charts.

Complete the sentences.

a)

Ones	Tenths	Hundredths
	0.1 0.1 0.1 0.1 0.1	0.01 0.01 0.01

0.53 is equal to $\boxed{5}$ tenths and $\boxed{3}$ hundredths.

0.53 = 0.$\underline{5}$ + 0.0$\underline{3}$

b)

Ones	Tenths	Hundredths
1 1 1 1 1	0.1 0.1	0.01 0.01 0.01 0.01 0.01 0.01 0.01

5.27 is equal to 5 $\underline{ones}$, 2 $\underline{tenths}$ and $\boxed{7}$ hundredths.

5.27 = 5 + $\boxed{0}$. $\boxed{2}$ + $\boxed{0}$. $\boxed{0}$ $\boxed{7}$

2 What number is represented on the place value chart?

Ones	Tenths	Hundredths	Thousandths
1 1	0.1 0.1 0.1		0.001 0.001 0.001 0.001

$\boxed{2 \cdot 304}$

3 Make these numbers on a place value chart.

$$0.7 \qquad 0.75 \qquad 1.75 \qquad 1.85 \qquad 1.853$$

4 Draw counters to represent the numbers.

Write the value of the 5 and the 2 in each number.

a) 0.52

Tens	Ones	Tenths	Hundredths
		○ ○ ○ ○ ○	○ ○

$\underline{5 \ tenths \quad (0.5) \qquad 2 \ hundredths \ (0.02)}$

b) 5.2

Tens	Ones	Tenths	Hundredths
	○ ○ ○ ○ ○	○ ○	

$\underline{5 \ ones \quad (5) \qquad 2 \ tenths \quad (0.2)}$

c) 50.02

Tens	Ones	Tenths	Hundredths
○ ○ ○ ○ ○			○ ○

$\underline{5 \ tens \quad (50) \qquad 2 \ hundredths \ (0.02)}$

5 Complete the part-whole models.

a)

0.58 → 0.5, 0.08

c)

0.75 → 0.05, 0.7

b)

1.5 → 1, 0.5

d)

0.635 → 0.6, 0.035
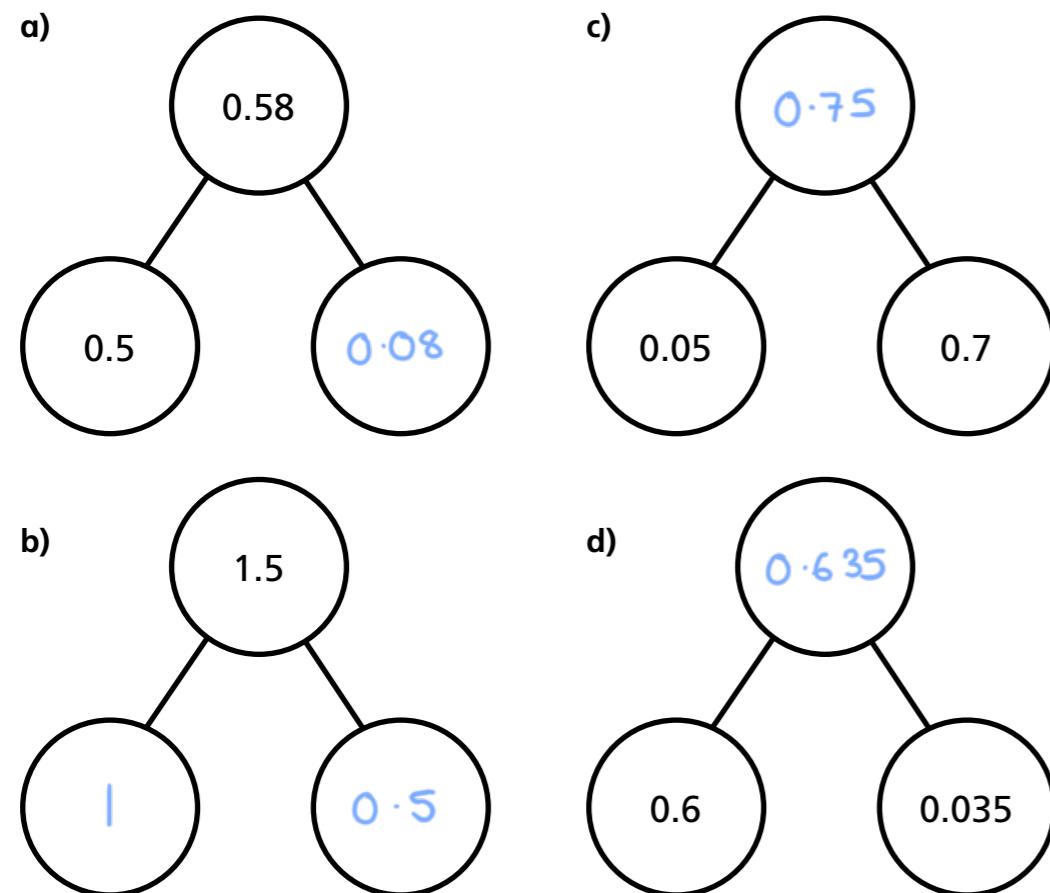
What is the value of the 5 in each number?

How does the part-whole model help?

6 Dora has made this number.

0.1   0.01 0.01 0.01 0.01 0.01 0.01 0.01

Dora wants to make the number 2.38

Circle the counters that Dora needs to add.

(1) (1)   (0.1) (0.1)   (0.01) 0.01

1 1   0.1 0.1   0.01 0.01

7

| 5 | 0.5 | 0.05 |

Which number is represented by the bar model?

Circle the correct answer.

55.5   55.05   (5.55)   5.055

8 Complete the number sentences.

a) 5 tens + 3 __ones__ + 6 tenths + 2 __hundredths__ = _5_3._6_2

b) [9] hundreds + [2] ones + [4] __tenths__ = 902.4

c) 7 tens + 3 ones + 9 hundredths = [7] [3] . [0] [9]

d) 2 tenths + 8 hundredths = [0] . [2] [8]

9 Jack thinks 45 hundredths is the same as 0.45

Kim thinks Jack is wrong because 0.45 has only 5 hundredths.

Who is correct? __Jack__

Give reasons for your answer.

$0.45 = 0.4 + 0.05$

$0.4 = 4$ tenths $= 40$ hundredths