

Reasoning 1

This is not true.

E.g. 23.365 has 3 decimal places but is larger than 4.6 which only has 1 decimal place.

Tommy says,



The more decimal places a number has, the smaller the number is.

Do you agree?
Explain why.

Reasoning 2

Both children are correct because 42 hundredths is the same as four tenths and 2 hundredths.

Amir says,

The decimal 0.42 can be read as 'four tenths and two hundredths'.



Teddy says,

The decimal 0.42 can be read as 'forty-two hundredths'.



Who do you agree with?
Explain your answer.

Reasoning 3

Toby thinks he has correctly matched the decimal numbers to the shapes using the clues given.

Is Toby correct? Explain your reasoning.

Decimal Numbers	Shapes
8.252	
2.225	
2.825	
8.52	

Toby has matched the lightning bolt and the heart correctly.

He has incorrectly matched the other decimals as the star should be matched to 2.225 and the triangle to 8.252.

Problem Solving 1

Who am I? I am a decimal number. I have two figures before the decimal point and two figures after the decimal point. I read the same forwards as backwards. I have no zeros. My first digit is bigger than my second digit. The sum of my digits is 8.

The number must be 31.13

Problem Solving 2

Teddy could be 3 of the numbers so leave him until last.

Alex must be 4.445 as this is the only possible answer

Dora could be 2 of the numbers (either 3.454 or 3.54) so try Jack first

Jack must be 3.54

Therefore Dora must be 3.454

Now you can see that Teddy is 4.345