

Category
Magnitude:

Contextualized

Noncontextualized

Confusion of length and value

A soft drink like Coke comes in different sizes. One is 1.51 and another is 355 ml. John says that 355 was bigger than 1.5 because that is a larger number. Amoura says that 1.5 l is more than 355 ml because that is a bigger bottle.

Alex said that .355 was more than .5 because 355 was more than 5. Jasmine said that .5 was more than .355 because 5 tenths was more than 355 thousandths

Magnitude:
Different representations of decimal fractions

The paper says that one New Zealand dollar = 0.9309 in Australian dollars. Susan said that would be 93.09 cents. Andrew said it would be 9309 dollars.

Teri said that $93 \frac{1}{4}$ was written as 93.04 in decimals. Peta said that $93 \frac{1}{4}$ was written as 93.25 in decimals

Addition and subtraction:
Confusions of length and value

How much do you think you will have left if you have a 1.5 liter bottle of drink and pour out enough to fill a 225 ml glass?

If you subtract 0.225 from 1.5 what will you get?

Addition and subtraction:
Different representations of Decimal fractions

If you go on a trip and you buy 1 liter of petrol @ 90.9¢, and a meal at McDonalds' at \$4.95, how much will it cost?

If you add $90 \frac{9}{10}$ and 4.95 what will your answer be?

Multiplication and division:
Continuity of units across the decimal point

Louise is making elastics for skipping and is buying 2 meters 30 cm for each. She needs to make up 10 for the class. She says that she will need 10 times 2.30 meters and that would be 20 meters and 300 cms. Conrad says that 10 times 2 meters 30 centimeters would be 23 meters.

Louise thought that 2.30×10 would be 20.300. Conrad thought that 2.30×10 would be 23.

Multiplication and division
Different representations of decimal fractions

\$1 New Zealand exchanges for 1.5989 Samoan tala. How much would you get for \$10 New Zealand?

How much is $1 \frac{1}{2} \times 10$?

