Divide by 10, 100 and 1,000

7a. Complete the digit cards to create answers to two calculations below. Which calculation can not be answered using your digit cards?

A. 423.1 ÷ 10 =

B. 4,826 ÷ 200 =

C. 4,512 ÷ 100 =

GD Change one digit card to answer the odd one out.

PS

7b. Complete the digit cards to create answers to the calculations below. Which calculation can not be answered using your digit cards?

A. 6,428 ÷ 20 =

B. 162.4 ÷ 10 =

C. 4,123 ÷ 100 =

GD Change one digit card to answer the odd one out.

PS

8a. Jacob and Kelly are dividing numbers by 200.



Jacob: When I calculate 2,802 ÷ 200, I will divide by 100 and double the answer to get 56.04.



Kelly: When I calculate 2,802 ÷ 200, I will divide by 100 and halve the answer to get 14.01.

Who is correct? Give reasons for your answer.

GD

R

8b. Sean and Ali are dividing numbers by 2,000.



Sean: When I calculate 4,608 ÷ 2,000, I will divide by 1,000 and halve the answer to get 2.304.



Ali: When I calculate 4,608 ÷ 2,000, I will divide by 1,000 and double the answer to get 9.216.

Who is correct? Give reasons for your answer.

GD

R

9a. Solve the riddle.

Ian is thinking of a number.



Ian: My number has 3 decimal places and is between 7kg and 8kg. When converted to grams, the hundreds digit is 6 and the tens digit is 9.

What could Ian's number be? Find 3 possible answers. Give your answer in kg.

GD

PS

9b. Solve the riddle.

Dylan is thinking of a number.



Dylan: My number has 3 decimal places and is between 4L and 5L. When converted to millilitres, the tens digit is 2 and the ones digit is 8.

What could Dylan's number be? Find 3 possible answers. Give your answer in L.

GD

PS

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Reasoning and Problem Solving
Divide by 10, 100 and 1,000

Developing

1a. A = 713.2; B = 71.4 (it cannot be made using the digit cards); C = 72.1

2a. Hafsa is correct. She has moved the digits 2 places to the right. Sinead has divided by 10.

3a. 6.52

Expected

4a. A = 70.23; B = 0.623; C = 3.08 (it cannot be made using the digit cards)

5a. Alice is correct. She has divided 3,050m by 1,000. Cian is incorrect as he divided by 100.

6a. 21.55

Greater Depth

7a. Digit cards: 1, 2, 3 and 4.
A = 423.1; B = 24.13; C = 45.12 (it is the odd one out)
To answer the odd one out, change the 3 for a 5.

8a. Kelly is correct. The answer is 14.01 as 2,802 ÷ 100 = 28.02 and then halved to equal 14.01.

9a. Various answers, for example: 7.690kg, 7.691kg and 7.692kg

Reasoning and Problem Solving
Divide by 10, 100 and 1,000

Developing

1b. A = 12.3; B = 421; C = 31.5 (it cannot be made with the digit cards)

2b. Gabriel is correct. He has moved the digits 3 place to the right. Isabel has divided by 100.

3b. 0.76

Expected

4b. A = 54.2; B = 0.405 (it cannot be made using the digit cards); C = 1,354

5b. Chuan is correct. He has divided 5,690g by 1,000. Jilly has also divided by 1,000, but she has done so incorrectly.

6b. 7.185

Greater Depth

7b. Digit cards: 1, 2, 3, and 4.
A = 321.4; B = 16.24 (it is the odd one out)
C = 41.23
To answer the odd one out, change the 3 for a 6.

8b. Sean is correct. The answer is 2.304 as 4,608 ÷ 1,000 = 4.608 and then halved to equal 2.304.

9b. Various answers, for example: 4.728L, 4.828L and 4.928L

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