Year 5 Mathematics 1 Challenge WC – 27.4.2020

Miss Vivian's group

1a.
Jesse solved these number sentences using <, > or =

$0.43 – 0.21 > 0.21 + 0.34$

$0.94 – 0.04 < 0.09$

$0.72 – 0.22 = 0.31 + 0.19$

$0.4 – 0.03 > 0.07 + 0.3$

Has she solved them correctly? Correct any mistakes you find.

1b.
Denise solved these number sentences using <, > or =

$0.82 – 0.61 > 0.1 + 0.34$

$0.04 + 0.04 = 0.6 + 0.2$

$0.1 – 0.04 = 0.3 + 0.3$

$0.96 – 0.43 < 0.22 + 0.33$

Has she solved them correctly? Correct any mistakes you find.

2a.
Dogs need to be 0.79 m tall to enter the 'big dog' category at the dog show.

Geoff	0.54 m
Moss	0.86 m
Peanut	0.63 m
Foster	0.72 m
Trigger	0.77 m

Which dog is nearest to the category? By how much did they all miss out?

2b.
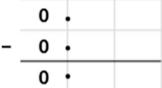A carpenter is cutting lengths of wood from planks which are 0.85m in length.

1	0.34 m
2	0.53 m
3	0.12 m
4	0.74 m
5	0.83 m

How much waste does each cut create?

3a.
Using the digit cards below for subtraction, Fionn thinks the smallest number he can make is 0.2

4	7	2	8

```
    0 .   
  - 0 .   
  ───────
    0 .   
```

Is he correct? Explain your answer.

3b.
Using the digit cards below for subtraction, Jessica thinks the largest number she can make will be > 0.5.

6	2	8	4

```
    0 .   
  - 0 .   
  ───────
    0 .   
```

Is she correct? Explain your answer.

4a. Kamal solved these number sentences using <, > or =

$0.882 - 0.764 < 0.201 + 0.48$

$0.394 - 0.146 > 0.2$

$0.164 - 0.04 < 0.002 + 0.122$

$0.67 - 0.393 < 0.3 - 0.13$

Has he solved them correctly? Show why you think so correcting any mistakes you find.

4b. Jonnie solved these number sentences using <, > or =

$0.95 - 0.141 = 0.701 + 0.038$

$0.114 - 0.008 > 0.892 - 0.786$

$0.474 - 0.04 = 0.47$

$0.1 + 0.009 < 0.546 - 0.455$

Has he solved them correctly? Show why you think so correcting any mistakes you find.

5a. Anna's running schedule has her covering 0.854km per day. Her trainer advised her to walk to warm up then run each day as follows:

Mon	0.263 km
Tues	0.447 km
Wed	0.568 km
Thurs	0.734 km
Fri	0.8 km

How far did she walk to warm up each day?

5b. Class 5 are having a sponsored sunflower growing competition. To meet their target, the flower needs to grow 0.423cm every two days.

Mon	0.116 cm
Wed	0.309 cm
Fri	0.067 cm
Mon	0.16 cm
Wed	0.006 cm

How much have they missed their target by each day?

6a. Using the digit cards below for subtraction, Kayla thinks the smallest number she can make will be > 0.1

7	3	9	5	4	1

$$\begin{array}{r} 0\,.\, \\ -\ 0\,.\, \\ \hline 0\,.\, \end{array}$$

Is she correct? Explain your answer.

6b. Using the digit cards below for subtraction, Riley thinks the largest number he can make will be > 0.9

7	2	5	8	7	0

$$\begin{array}{r} 0\,.\, \\ -\ 0\,.\, \\ \hline 0\,.\, \end{array}$$

Is he correct? Explain your answer.

7a. Graham solved these number sentences using <, > or =

$0.513 - 0.064 < 0.01 + 0.008$

$0.94 - 0.046 > 0.086 + 0.808$

$0.784 - 0.096 = 0.992 - 0.304$

$0.973 - 0.073 < 0.134 + 0.766$

Has he solved them correctly? Show why you think so correcting any mistakes you find.

7b. Amaya solved these number sentences using <, > or =

$0.195 - 0.149 = 0.792 - 0.753$

$0.472 - 0.385 > 0.673 - 0.596$

$0.474 - 0.08 < 0.953 - 0.569$

$0.009 + 0.594 < 0.607 - 0.004$

Has she solved them correctly? Show why you think so correcting any mistakes you find.

8a. Children must be 0.985m tall to ride the Rocket Launcher ride alone.

Timmy	0.983 m
Keeley	0.576 m
Honey	0.895 m
Jon	0.747 m
Libby	0.795 m

How much does each child have to grow to ride the Rocket Launcher?

8b. Joe needs to knit at least 0.673m of his pattern each day to complete the garment by the weekend. This is his knitting record.

Mon	0.673 m
Tues	0.567 m
Wed	0.684 m
Thurs	0.43 m
Fri	0.098 m

How far off his target is he each day?

9a. Using the digit cards below for subtraction, Connor thinks the smallest number he can make will be:

< 0.01 and > 0.004

8	9	2	3	5	1	0

```
  0 . |   |   |
- 0 . |   |   |
  0 . |   |   |
```

Is he correct? Explain your answer.

9b. Using the digit cards below for subtraction, Robyn thinks the largest number he can make will be:

< 0.846 and > 0.832

7	2	7	1	8	9	3

```
  0 . |   |   |
- 0 . |   |   |
  0 . |   |   |
```

Is he correct? Explain your answer.

Answers:

<u>Developing</u>
1a. Incorrect 0.22 < 0.55; incorrect 0.9 >
0.09; correct 0.5 = 0.5; incorrect 0.37 = 0.37
2a. 0.25m, +0.07m, 0.16m, 0.07m, 0.02m.
Moss is in the 'big dog' category; Trigger is
the closest to qualifying.
3a. Incorrect. Various possible answers,
including: 0.47 – 0.28 = 0.19

<u>Expected</u>
4a. Correct 0.118 < 0.681; correct 0.248 >
0.2; incorrect 0.124 = 0.124; incorrect 0.277
> 0.17
5a. 0.591km, 0.407km, 0.286km. 0.12km,
0.054km
6a. Incorrect. Various possible answers,
including: 0.513 – 0.497 = 0.016

<u>Greater Depth</u>
7a. Incorrect 0.449 > 0.018; incorrect 0.894
= 0.894; correct 0.688 = 0.688; incorrect 0.9
= 0.9
8a. 0.002m, 0.409m, 0.09m, 0.238m, 0.19m
9a. Incorrect because 0.301 – 0.298 =
0.003

<u>Developing</u>
1b. Incorrect 0.21 < 0.44; incorrect 0.08 <
0.8; incorrect 0.06 < 0.6; correct 0.53 < 0.55
2b. 0.51m, 0.32m, 0.73m, 0.11m, 0.02m
3b. Correct; 0.86 – 0.24 = 0.62

<u>Expected</u>
4b. Incorrect 0.809 > 0.739; incorrect 0.106
= 0.106; incorrect 0.434 < 0.47; incorrect
0.109 > 0.091
5b. 0.307cm, 0.114cm, 0.356cm, 0.263cm,
0.417cm
6b. Incorrect. Taking the smallest number
away from the largest number gives an
answer < 0.9

<u>Greater Depth</u>
7b. Incorrect 0.046 > 0.039; correct 0.087 >
0.077; incorrect 0.394 > 0.384; correct
0.603 = 0.603
8b. 0m, 0.106m, +0.011m, 0.243m, 0.575m
9b. Incorrect because 0.987 – 0.123 =
0.864