

Year 5

Week 12

Lesson 1 – ordering and comparing decimals

### **Challenge 1**

**Insert the correct symbol between the decimals below.**

1.  $2.5 < 2.52$

2.  $3.5 > 3.41$

3.  $5.52 < 5.523$

4.  $5.5 = 5.50$

5.  $0.087 < 0.87$

6.  $4.5 > 4.439$

7.  $9.05 < 9.15$

8.  $7.652 > 7.65$

### **Challenge 2**

**Order the decimals below in descending order:**

1. 6.53, 6.7, 6.9, 6.77, 6.99 = 6.99, 6.9, 6.77, 6.53

2. 3.55, 3.5, 3.4, 3.44, 3.9 = 3.9, 3.55, 3.5, 3.44, 3.4

3. 2.8, 2.08, 2.008, 2.88, 2.9 = 2.9, 2.88, 2.8, 2.08, 2.008

4. 4.5, 4.45, 4.75, 4.74, 3.75 = 4.75, 4.74, 4.5, 4.45, 3.75

5. 7.501, 7.5, 7.510, 75.1, 7.051 = 75.1, 7.510, 7.501, 7.5, 7.051

### Challenge 3

Jess says:



3.105 is greater than 3.2 because it has more digits

Do you agree with her? Explain your answer and why clearly. Fully discuss place value.

**Jess is incorrect. The value in the tenths column shows a 1 and 2 for each number. Two is larger than one which means 3.2 is larger.**

Danny says: 

7.89 is bigger than 7.9 because 89 is bigger than 9.

Do you agree with him? Explain your answer and why clearly. Fully discuss place value.

**Danny is incorrect because again we are concentrating on the tenths column. As nine is bigger than eight, this means 7.9 is larger.**

### Challenge 4

You have been given a set of decimals. Somewhere in the order is a missing decimal which needs to be filled in. Fill in what the decimal could be (there could be more than one answer).

**Many answers for this question**

1.41, 1.45, 1.56, \_\_\_\_\_ 1.62, 1.79

2.532, \_\_\_\_\_ 2.537, 2.59, 2.595

9.098, 9.1, \_\_\_\_\_, 9.2, 9.35, 9.423

12.459, 12.5, \_\_\_\_\_, 12.637 \_\_\_\_\_

10.562, 10.9, \_\_\_\_\_, 11.001, 12.671

7.5, 7.52, \_\_\_\_\_ 7.525, 7.526, 7.527

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Lesson 2 –writing decimals as fractions

### Challenge 1

Write the decimals below as fractions

1.  $0.23 = 23/100$

2.  $0.45 = 45/100$

3.  $0.67 = 67/100$

4.  $0.89 = 89/100$

5.  $0.61 = 61/100$

6.  $0.12 = 12/100$

7.  $0.33 = 33/100$

8.  $0.55 = 55/100$

### Challenge 2

Write the decimals below as fractions

1.  $0.9 = 9/10$

2.  $0.567 = 567/1000$

3.  $0.09 = 9/100$

4.  $0.561 = 561/1000$

5.  $0.34 = 34/100$

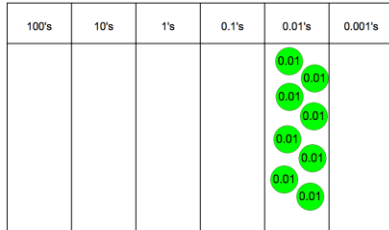
6.  $0.46 = 46/100$

7.  $0.3 = 3/10$

8.  $0.569 = 569/1,000$

**Challenge 3**

Find and explain the mistakes in the questions below.



$= 80/100$

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$= 263/100$

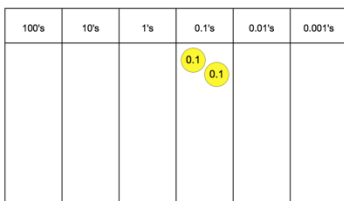
\_\_\_\_\_ This answer should be over 1,000 =

$263/1,000$  \_\_\_\_\_

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$= 2/100$

\_\_\_\_\_ This answer should be over 10 =  $2/10$

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Lesson 3 – Adding and subtracting decimals

**Challenge 1**

**Add and subtract the decimals below.**

1.  $4.53 - 1.92 = 2.61$

2.  $3.921 + 2.5 = 6.421$

3.  $7.8 - 2.582 = 5.218$

4.  $9.203 + 4.15 = 13.353$

5.  $6.3 - 3.129 = 3.171$

6.  $7.909 + 2.343 = 10.252$

7.  $6.97 - 2.945 = 4.025$

8.  $4.298 + 6.876 = 11.174$

**Challenge 2**

**Add and subtract the decimals below.**

1.  $23.56 - 4.89 = 18.67$

2.  $55.23 - 8.76 = 46.47$

3.  $23.57 - 8.93 = 14.64$

4.  $54.82 + 2.56 = 57.38$

5.  $87.73 + 8.39 = 96.12$

6.  $76.32 + 7.41 = 83.73$

7.  $92.32 - 7.85 = 84.47$

8.  $65.31 + 6.43 = 71.74$

### Challenge 3

Each of the sequences below increase with jumps of the same amount each time. For each of the sequences, fill in the missing number and tell me how much the increase is for the jumps.

1) 14.7, 14.9, 15.1, 15.3, 15.5, 15.7, 15.9

2) 5.7, 6.2, 6.7, 7.2, 7.7, 8.2, 8.7

3) 8.5, 8.8, 9.1, 9.4, 9.7, 10, 10.3

4) 7.1, 6.7, 6.3, 5.9, 5.5, 5.1, 4.7

5) 3.23, 3.33, 3.43, 3.53, 3.63, 3.73

6) 15.48, 15.45, 15.42, 15.39, 15.36, 15.33

7) 1.05, 1.08, 1.11, 1.14, 1.17, 1.20, 1.23

8) 0.76, 0.71, 0.66, 0.61, 0.56, 0.51

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Lesson 4 – Adding and subtracting decimals from a whole number

**Challenge 1**

Add and subtract the decimals below to have two decimals that add up to make 1.

1)

1	
0.42	?

2)

+

1	
0.18	?

3)

1	
0.74	?

4)

1	
?	0.44

5)

1	
?	0.67

1= 0.58    2= 0.82    3= 0.26    4= 0.56    5= 0.33

## Challenge 2

Add and subtract the decimals below to have two decimals that add up to make 1

1)

1	
0.673	?

2)

1	
0.089	?

3)

1	
0.391	?

4)

1	
?	0.851

5)

1	
?	0.928

1 = 0.327 2 = 0.919 3 = 0.609 4 = 0.149 5 = 0.072



**Challenge 3 (PS)**

Answer the questions below by adding and subtracting to make 1.

a)  $0.6 + 0.321 + \underline{\quad 0.079 \quad} = 1$

b)  $0.321 + 0.38 + \underline{\quad 0.299 \quad} = 1$

c)  $0.671 + 0.2 + \underline{\quad 0.129 \quad} = 1$

d)  $0.39 + 0.3 \underline{\quad 0.31 \quad} = 1$

e)  $0.789 + 0.1 \underline{\quad 0.111 \quad} = 1$

f)  $1 = 0.562 - 0.3 - \underline{\quad 0.138 \quad}$