

Workshop: Decimal Concepts

Some students are playing games to review decimal concepts.

Self-Check: Questions 1-6

- Diana and Mark are playing the *Spin and Read Decimals Game*.
 - Diana made this number:

				.	7	5			

 Write her number in words.
 - Mark made this number:

				.	0	2	6		

 Write his number in words.
- Levi is representing decimals as he plays the *Score One Game*.
 - Which point on the number line represents the location of 0.81?
 - Which point represents the location of 0.06?
 - Between which two points on the number line should Levi place 0.099?
- Sam and Frank are playing *Decimal Order*. Sam drew the six Decimal Cards shown below. Did he place the decimals in order from smallest to largest correctly? If not, write the decimals in order from smallest to largest.

0.10	0.01	0.50	0.001	.250	0.579
Smallest			Largest		

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- Tanya is playing the *Add or Subtract to 1 Game* with Irma.
 - Solve each player's problem:
 Tanya: $0.465 + .51$ Irma: $9.12 - 7.98$
 - Explain how to estimate Irma's difference.
 - Which player is closer to 1? How did you decide?
- Peter and Maya are playing *Start, Hop, Stop to Hundredths*. Peter's turn is shown below. Where does he start? Where does he stop? Write a number sentence to describe Peter's moves on the number line below.

Turn #	Start	Stop	Number of Hops	Number Sentence
1.	?	?	7	

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Questions 1–6

- seventy-five hundredths
 - twenty-six thousandths
- point E
 - point A
 - between point B and point C
- No; The correct order is 0.001, 0.01, .10, 0.250, 0.50, 0.579
- Tanya: $0.465 + .51 = 0.975$
 Irma: $9.12 - 7.98 = 1.14$
 - Possible response: 7.98 is close to 8, and 9.12 is just a little more than $9.9 - 8 = 1$.
 - Tanya is closer to 1. She is only .025 away from 1 and Irma is 0.14 over 1.
- Starts at 0.22; Stops at 0.65; $0.22 + 0.1 + 0.1 + 0.1 + 0.1 + 0.01 + 0.01 + 0.01 = 0.65$
- Maya made a mistake. She stopped at 0.05 instead of 0.5.
 - Possible response: $0.85 - 0.1 - 0.1 - 0.1 - 0.01 - 0.01 - 0.01 - 0.01 - 0.01 = 0.5$

- Maya's turn is shown below. Peter thinks Maya made a mistake.

Turn #	Start	Stop	Number of Hops	Number Sentence
2.	0.85	0.5	8	$0.85 - \underline{\hspace{1cm}} = 0.5$

 - Do you agree with Peter? Explain why or why not.
 - Use a number sentence to show how Maya could have moved on the number line.

Think about your work on Questions 1-6 and your progress with decimal concepts. Use the Workshop Menu to choose games that practice representing decimals, comparing and ordering decimals, and finding decimal sums and differences.

Workshop Menu		
Can I Do This?	Working On It!	Got It!
Represent decimals.	★ <i>Spin and Read Decimals Game</i>	■ <i>Score One Game</i>
Compare and order decimals.	★ <i>Decimal Order with Decimal Cards 1</i>	■ <i>Decimal Order</i>
Add and subtract decimals using models and paper and pencil.	★ <i>Start, Hop, Stop to Hundredths</i>	■ <i>Add or Subtract to 1 Game</i>

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Homework (SG p. 399)

Questions 1–4

1. Rule: Add 0.5

Input	Output
0.23	0.73
1.57	2.07
0.737	1.237
.9	1.4
0.222	0.722
1.620	2.12

2. Rule: Subtract 0.5

Input	Output
0.793	0.293
2.10	1.6
.91	0.41
0.811	0.311
1.17	0.67
.77	0.27

3. **A.** 0.03, 0.031, 0.1130, 0.13, 0.3, 0.311
B. 1.007, 1.07, 1.2, 1.27, 1.7, 1.72
C. 0.005, 0.008, .050, 0.080, 0.50, 0.8
4. **A.** Harry weighs 0.4 grams more than Gus.
B. 181.804 grams
C. Harry
D. Lulu weighs 0.396 grams more than Fluffy.

Complete the function machines. Use any strategy to add or subtract the decimals.

1. Rule: Add 0.5

Input	Output
0.23	
1.57	
0.737	
.9	
0.222	
1.620	

2. Rule: Subtract 0.5

Input	Output
0.793	
2.10	
.91	
0.811	
1.17	
.77	

3. Compare and order the decimals from smallest to largest.

A. 0.031 0.1130 .311 0.03 0.3 0.13
B. 1.72 1.07 1.27 1.007 1.7 1.2
C. 0.005 0.8 .050 0.080 0.5 0.008

4. Natasha weighed each of her pet hamsters. She recorded their weights in the table below.

Name	Weight (in grams)
Lulu	90.4
Fluffy	90.004
Sprinkles	100.99
Marshmallow	91.8
Harry	99.45
Gus	99.05

A. Which hamster weighs more, Harry or Gus? How much more?
 B. How much do Marshmallow and Fluffy weigh together?
 C. Which hamster weighs closest to 100 grams?
 D. Which hamster weighs more, Lulu or Fluffy? How much more?

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