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UNIT 1 LESSON 1

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| AIM: | SWBAT add and subtract decimals. |

**THINK ABOUT IT!**

1) Analyze the work shown below. Use any strategy to identify and circle the problems that are solved **correctly**.

42.5 9.8 20.3 29.8

+ 9 + 3.0 - 4.1 - 8

43.4 12.8 16.2 29.0

Which problems were solved correctly? How do you know?

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**Test the Conjecture**

*Test the Conjecture #1)*

Find the sum of 23.1 and 0.98

*Test the Conjecture #2)*

In 2015, Tamya spent 100 hours reading. In 2016, she has only read 9.5 hours. How many more hours does she have to read in order to also read 100 hours in 2016?

Conjecture

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| To add or subtract, digits must be in the same  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |

**PARTNER PRACTICE**

* CFS for top quality work
  + Problem is annotated with margin notes to provide additional meaning
  + All calculations are shown
  + Check is performed
  + Work is organized and neat

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| *Bachelor Level* |

***Show your work for each problem below.***

1. Find the sum of 5.026 and 3.1?
2. Find the difference: 17.08 - 9

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| *Master Level* |

1. John needs $2.50. He has $0.75. How much more money does he need?
2. Stacey answered the problem below incorrectly.

16.007 – 0.55 = 10.507

Describe what she might have done wrong, why her answer doesn’t make sense, and then solve the problem correctly.

***Show your work.***

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1. Sammy, Teddy, and Ursula ran a 100-meter race. Sammy’s time was 15.03 seconds. Teddy’s and Ursula’s times were 14.7 seconds and 15.003 seconds, respectively. Which statements are true? **Select all that apply.**
   1. Teddy ran 0.04 of a second faster than Ursula
   2. Teddy came in 3rd place
   3. Ursula ran 0.027 of a second faster than Sammy
   4. The time between the slowest and fastest run was 0.33 of a second

**INDEPENDENT PRACTICE**

* CFS for top quality work
  + Problem is annotated with margin notes to provide additional meaning
  + All calculations are shown
  + Check is performed
  + Work is organized and neat

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| *Bachelor Level* |

1. Evaluate each expression. ***Show your work.***
   1. 23 – 0.324
   2. 9.3 + 19.59
2. A cheetah can run 112.654 kilometers per hour. A pronghorn antelope can run 98.17 kilometers per hour. How much faster, in kilometers, is the cheetah than the antelope?
3. 1028.37
4. 210.824
5. 102.837
6. 14.484

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| *Master Level* |

1. John walks 1 mile to school and Nina walks 0.351 miles to school. How much farther does John walk than Nina?
2. Janelle took two quizzes that were both worth 50 percentage points. On her first quiz she scored 20.49%. On her second quiz (she studied more!), her score was 39.14%. Which of the following statements is true? **Circle all that apply.**
   1. She decreased her score by 18.65%
   2. Her second quiz score was 18.65% higher than her first.
   3. Her second score was 10.86 percentage points from being a 50%
3. Jahkyra added 0.0015 and 0.015 and got 0.030 as her answer. Daniel added the same two numbers and got 0.0030 as his answer. Do you agree with Daniel, Jahkyra, or neither of them? If you agree with one of them, explain who you agree with and why. If you don’t agree with either of them, what do you think is the correct answer and why?

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1. A swimmer is in a 100-meter race. She swims the first half of the race in 32.34 seconds and the last half of the race in 34.83 seconds.

Part A: How long did it take her to swim the whole race? ***Show your work.***

Part B: How much longer did she take the swim the last half of the race? ***Show your work.***

1. Jane buys an apple for $0.75 and an orange for $0.35. She pays with a $5.00 bill. How much change will she get?

***Show your work.***

1. Ally needs 30 meters of wood to build a large wooden frame. She bought three different lengths of wood measuring 12.5, 11.43, and 7.244 meters. Choose **True** or **False** for each statement.

***Show your work.***

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| Statement | True | False |
| Ally has, in total, 30.564 meters of wood to use for the frame. |  |  |
| After she builds the frame, Ally will have 1.174 meters of wood left |  |  |
| Ally bought more wood than she needed in order to build the frame |  |  |
| The total wood Ally bought is 1.174 meters less than the amount needed for the frame |  |  |

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| *PhD Level* |

1. Edwin went to the grocery store and bought several pounds of fruit. The fruit costs $2 per pound. He bought 2.5 pounds of apples, 1 pounds of bananas, and 0.85 pounds of kiwis. If he paid with a $10 bill, how much change will he get?

***Show your work.***

* CFS for top quality work
  + Problem is annotated with margin notes to provide additional meaning
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  + Work is organized and neat

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXIT TICKET**

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| Self-assessment | I mastered the learning objective today. | I am almost there. | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there. | You need more practice and feedback. |

1. Find the sum of 54.2 and 0.53
2. Jeff subtracted 4.3 from 9.85 and got a difference of 9.42. Did he subtract correctly? If yes, how do you know? If no, explain the mistake he made and a strategy for how he should avoid the mistake in the future.

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