Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Donald is on the diving team at his school. At the last diving competition Donald and his team, The Daring Divers, did an amazing job! For his first dive, Donald did a reverse dive and scored \_\_\_\_\_ points. On his second and final dive, Donald did a dive from a handstand position and scored \_\_\_\_\_ points. How many total points did Donald score with his two impressive dives?

(8.2, 9) (8.25, 9.2) (8.25, 9.26)

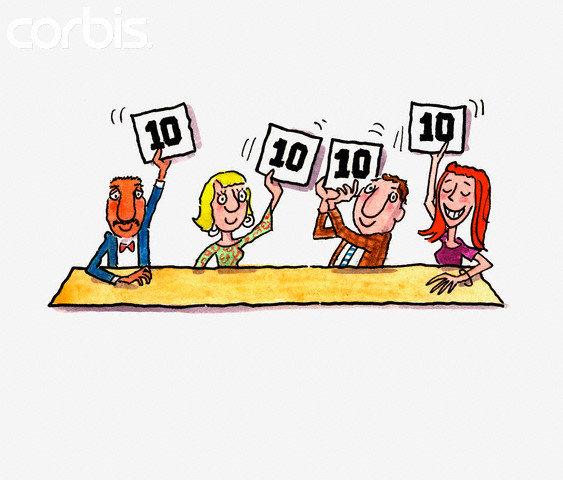
Justify your solution with numbers, pictures, and/or words.



Danielle is the only girl on The Daring Divers team. She loves to receive higher scores than the boys. At the last diving competition she did two outstanding dives. For her first dive she did a twist dive and received \_\_\_\_\_ points. Her second and final dive was reverse dive from a handstand. Altogether, Danielle scored \_\_\_\_\_ points for her two dives. How many points did she receive for her reverse dive from a handstand?

(9.4, 18.8) (9.59, 19) (7.92, 18.97)

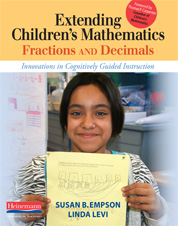
Justify your solution with numbers, pictures, and/or words.



Out of all The Daring Divers, Donald and Danielle had the highest scores at the last diving competition. Together they had a combined score of 39.84. How many possible scores can you come up with for Donald and Danielle that equal a combined score of 39.84?

Justify your solution with numbers, pictures, and/or words.

* What standards does this lesson address?
  + **5.NBT.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
    - For this lesson we are focusing on adding and subtracting decimals
  + **5.NBT.3a** Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
* What problem types are represented in this lesson? Common Core names and CGI names are both listed (see page 88 of the Common Core Standards for these common addition and subtraction situations)
  + The problems are shown in this order:
    - Put Together/Take Apart Total Unknown – Part-Part Whole: Whole Unknown
    - Put Together/Take Apart Addend Unknown – Part-Part Whole: Part Unknown
    - Put Together/Take Apart Both Addends Unknown



* Suggested Pacing
  + Allow time for students to independently problem solve for each situation and then allow time for a class discussion of strategies and questions – focusing on teacher selected student strategies that will help move the majority of your class where you would like them to be. This could take approximately 2-3 days, but the time spent will depend completely on what your students need.
* Helpful Resources
  + Extending Children’s Mathematics: Fractions and Decimals (Susan B. Empson and Linda Levi)
    - Chapter 7 page 166 (Moving to Addition and Subtraction paragraph – this makes a connection between the importance of understanding place value before adding and subtracting with decimals – Unit 2)
    - Chapter 8 page 186 (starting with “Addition and subtraction of decimals is easier…)