

Lesson

14-1

Decimal Addition

Questions

- Is the sum $0.8 + 0.5$ greater than 1 or less than 1? How do you know?
- A student incorrectly performed the addition shown below. Describe the error the student made.

$$\begin{array}{r} .95 \\ + .748 \\ \hline 0.1698 \end{array}$$

- In the problem below, the correct digits of the sum are given, but the decimal point is missing. Use estimation to determine where the decimal point should be written.

$$0.999 + 24.86 + 5.0007 = 308597$$

- Multiple Choice** To find the sum below, how should you write the numbers?

$$398.02 + 74.006 + 0.9999 + 1046.8$$

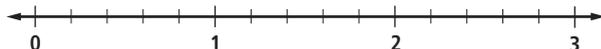
- Write the numbers so that the right-most digits are aligned.
 - Write the numbers so that the left-most digits are aligned.
 - Write the numbers so that the decimal points are aligned.
 - It does not matter how you align the numbers.
- Find each sum.
 - $987.06 + 1099.967$
 - $1099.967 + 987.06$

- Mr. Holiday is shopping for gifts and plans on purchasing the items listed in the table at the right.
 - Estimate how much money he plans on spending.
 - What is the exact amount he plans on spending (excluding any sales tax)?
 - If the sales tax is \$9 for every \$100 spent, about how much should he expect to pay in sales tax?

Item	Price
DVD Collection	\$24.95
CD	\$14.89
Ping-pong Table	\$249.99
Air Hockey Game	\$99.00

- Mrs. Franks buys three hot dogs from a vendor at a ballgame at \$4.50 each. As she hands the vendor a \$20 bill, she mentally calculates how much change she should receive. First she finds the total cost, and then she “adds on” amounts until she reaches \$20. How much change should she receive?

8. **Fill in the Blank** $58.69972 + (1009.877 + 54,952.11) =$
 $(58.69972 + 1009.877) + \underline{\quad? \quad}$
9. After spending \$129.99 on a coat, Mrs. Suede had \$3.05 left in her wallet. How much did she have in her wallet before she bought the coat?
10. There are four heats in the Winter Olympics four-man bobsleigh, and the team with the best total time for the four heats wins the gold medal. In 2010, the U.S. won the gold medal with the times given in the table at the right.
- What was the total time for the U.S. team's four heats in seconds (given to the hundredth of a second)?
 - What was the total time for the U.S. team's four heats in minutes and seconds (given to the hundredth of a second)?
 - In 2010, Germany earned the silver medal for the four-man bobsleigh, with a total time 0.38 second slower than that of the U.S. team. What was Germany's total time in seconds (given to the hundredth of a second)?
11. Convert the fractions to decimals to find each sum. Give the sum as a decimal, and then give the sum as a fraction.
- $\frac{3}{10} + \frac{7}{100} + \frac{1}{1000}$
 - $3\frac{2}{5} + 5\frac{3}{4}$
 - $\frac{1}{2} + \frac{1}{4} + \frac{1}{8}$
12. Copy the number line below, and label the tick marks to show the decimals that are not marked. Then picture $0.8 + 1.3$ on the number line. Finally, write a number sentence to represent the result.



13. Use mental math to find the missing number:

$$65.43 + \underline{\quad? \quad} = 100.00$$

14. Carrie bought three pairs of jeans, each at the same price. Based on rounding, she estimated that the total cost would be \$60 before tax.
- If she rounded to the nearest dollar, what is the maximum price for each pair?
 - If she rounded to the nearest dollar, what is the minimum price for each pair?

2010 Olympic Results for the U.S. Four-man Bobsleigh

Heat 1	50.89 sec
Heat 2	50.86 sec
Heat 3	51.19 sec
Heat 4	51.24 sec

15. **Multiple Choice** To find the sum below, you can insert 0s to help align the digits so that they appear in their correct place-value positions.

$$7.007 + 606.66 + 5500.5005 + 400 + 30.3$$

Which of the following correctly shows 0s inserted so that the value of the addends has not been changed and the digits are correctly aligned?

A	B	C	D
7.0007	7000.0070	7.0070	7.007
606.0066	6060.6600	606.6600	606.66
5500.5005	5500.5005	5500.5005	5500.5005
400.0000	4000.0000	400.0000	400
+ 30.0003	+ 3000.3000	+ 30.3000	+ 30.3

16. Think of using each of these cards exactly once in each problem.



- With the cards, what is the *greatest* sum that can be found by adding two numbers that are each less than 1000?
 - With the cards, what is the *least* sum that can be found by adding two numbers that are each greater than 1?
17. A walk-a-thon was thought to be 2.5 km long. However, it was later determined that the walk-a-thon was actually 80 meters longer than that. How long (in kilometers) was the actual walk-a-thon?
18. At a deli counter, Al asked for $1\frac{1}{4}$ pounds of turkey. The actual weight came to 1.312 pounds. The clerk wrapped the turkey in paper that weighed an additional 0.009 pound. What was the total weight of the turkey and the packaging?
19. The odometer reading (in miles) on Mr. Tripp's car at the beginning of a trip is shown below. Mr. Tripp drove from home, to the dentist, to his sister's home, to the store, and then back to his sister's home. Finally, he drove straight home. What was the odometer reading on his car at the end of the trip?

6 5 2 7 9 .4

