

3-5 Adding and Subtracting Decimals - Practice and Problem Solving

Find each sum.

13. $7.2 + 9.5$

Write the numbers vertically. Align the decimal points and add.

$$\begin{array}{r} 7.2 \\ +9.5 \\ \hline 16.7 \end{array}$$

15. $1.34 + 2$

Write the numbers vertically. Align the decimal points and add.

$$\begin{array}{r} 1.34 \\ +2.00 \\ \hline 3.34 \end{array}$$

17. $54.5 + 48.51$

Write the numbers vertically. Align the decimal points and add.

$$\begin{array}{r} 54.50 \\ +48.51 \\ \hline 103.01 \end{array}$$

Find each difference.

19. $5.6 - 3.5$

Write the numbers vertically. Align the decimal points and subtract.

$$\begin{array}{r} 5.6 \\ -3.5 \\ \hline 2.1 \end{array}$$

21. $97 - 16.98$

Write the numbers vertically. Align the decimal points and subtract.

$$\begin{array}{r} 97.00 \\ -16.98 \\ \hline 80.02 \end{array}$$

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23. $58.67 - 28.72$

Write the numbers vertically. Align the decimal points and subtract.

$$\begin{array}{r} 58.67 \\ -28.72 \\ \hline 29.95 \end{array}$$

25. **RODEO** The table shows the top three finishers in barrel racing at the Livestock Show and Rodeo. What is the time difference between first place and second place?

Barrel Racing Results	
Rider	Time (s)
Denise	15.87
Angela	16.00
Liz	16.03

First place: 15.87 s

Second place: 16.00 s

$$\begin{array}{r} 16.00 \\ -15.87 \\ \hline 0.13 \end{array}$$

The difference is 0.13 second.

ALGEBRA Evaluate each expression if $a = 128.9$ and $d = 22.035$.

27. $a - 11.25$

Substitute.

$$a - 11.25 = 128.9 - 11.25$$

Write the numbers vertically. Align the decimal points and subtract.

$$\begin{array}{r} 128.90 \\ -11.25 \\ \hline 117.65 \end{array}$$

29. $a - d$

Substitute.

$$a - d = 128.9 - 22.035$$

Write the numbers vertically. Align the decimal points and subtract.

$$\begin{array}{r} 128.900 \\ -22.035 \\ \hline 106.865 \end{array}$$

Use the order of operations to find the value of each expression.

31. $2 \cdot 6 + 0.073$

Multiply first, then add.

$$\begin{aligned} 2 \cdot 6 + 0.073 &= 12 + 0.073 \\ &= 12.073 \end{aligned}$$

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33. $6 - 4.304 + 2.5$

Perform the additions and subtractions from left to right.

$$6 - 4.304 + 2.5 = 1.696 + 2.5 \\ = 4.196$$

35. $8 + 6.3 - 3.9$

Perform the additions and subtractions from left to right.

$$8 + 6.3 - 3.9 = 14.3 - 3.9 \\ = 10.4$$

37. **POPULATION** If the world's population is 6.3 billion people and grows by 2.6 billion by 2050, how many people will there be in 2050?

Add.

$$6.3 + 2.6 = 8.9$$

There will be 8.9 billion people in 2050.

39. **FIND THE DATA** Refer to the Data File on pages 16–19. Choose some data and write a real-life problem in which you would add more than two decimals.

See students' work.

41. **CHALLENGE** Using each of the digits 1–8 only once, find two decimals that are each less than one and whose sum is the greatest possible value.

Sample answer: $0.8642 + 0.7531 = 1.6173$

43. **FIND THE ERROR** Noah and Yoko are finding $8.9 - 3.72$. Who is correct? Explain your reasoning.

Noah $8.9 - 3.72 = 5.22$

Yoko $8.9 - 3.72 = 5.18$

Yoko is correct. Noah has not annexed a zero for the first number.

45. Jamal took \$15.00 to spend at a sports card store. Baseball cards cost \$1.75 per pack, and hockey cards cost \$0.99 per pack. If Jamal buys 6 packs of baseball cards for \$10.50, how can he determine how much money he has left to spend on hockey cards?
- A** Subtract \$10.50 from \$15.00
B Add \$1.75 and \$0.99
C Subtract \$0.99 from \$1.75
D Add \$0.99 and \$10.50

He must subtract the amount he spent from the amount he started with.
The answer is A.

Estimate.

47. $4.231 + 3.98$

Round each number to the nearest unit. Then add.

$$4.231 + 3.98 \approx 4 + 4 \\ = 8$$

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49. $9.345 - 6.62$

Round each number to the nearest unit. Then subtract.

$$\begin{aligned} 9.345 - 6.625 &\approx 9 - 7 \\ &= 2 \end{aligned}$$

51. **PREREQUISITE SKILL** In a recent year, there were 45,033 beagles registered with the American Kennel Club. If there were 3 times as many labradors registered in the same year, find the number of registered labradors.

Multiply.

$$\begin{array}{r} 45,033 \\ \times \quad 3 \\ \hline 135,099 \end{array}$$