

Worksheet: Operations on Decimals (Addition and Subtraction) : Difficulty Level : Advance

Instructions: Carefully solve the problems below involving operations with decimals. Show your work for each question to receive full credit.

Part 1: Addition and Subtraction

1. **Add the following decimals:**

- (a) $76.543 + 34.287 =$ _____
- (b) $90.876 + 12.134 =$ _____
- (c) $7.890 + 45.210 + 3.456 =$ _____
- (d) $23.001 + 0.999 =$ _____

2. **Subtract the following decimals:**

- (a) $456.789 - 123.456 =$ _____
 - (b) $50.505 - 25.505 =$ _____
 - (c) $89.567 - 78.123 =$ _____
 - (d) $12.345 - 6.789 =$ _____
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Part 2: Multiplication

3. **Multiply the following decimals:**

- (a) $3.456 \times 4.5 =$ _____
- (b) $7.890 \times 1.2 =$ _____
- (c) $5.123 \times 0.06 =$ _____
- (d) $9.876 \times 0.3 =$ _____

4. **Word Problem:**

A bag of flour weighs 1.235 kg. If a baker buys 7.5 bags, how much flour does the baker have in total?

Answer: _____

Part 3: Division

5. **Divide the following decimals:**

- (a) $98.765 \div 3.5 =$ _____
- (b) $56.789 \div 4.2 =$ _____
- (c) $24.567 \div 1.23 =$ _____
- (d) $8.64 \div 0.12 =$ _____

6. **Word Problem:**

A 6.345-liter bottle of juice is poured equally into 5 smaller bottles. What is the amount of juice in each smaller bottle?

Answer: _____

Part 4: Mixed Operations

7. **Solve the following mixed operations:**

- (a) $(8.567 + 2.345) \times 3.4 =$ _____
- (b) $20.789 - (5.123 + 7.234) =$ _____
- (c) $(15.678 \times 2.5) \div 5.1 =$ _____
- (d) $4.567 \div (2.1 + 0.3) =$ _____

8. **Word Problem:**

A train travels 0.756 km per minute. If it travels for 150.5 minutes, how far does it go in total?

Answer: _____

Part 5: Challenge Problems

9. **Advanced Word Problem:**

Maria bought 3 items priced at \$12.345, \$45.67, and \$8.901. If she paid with a \$100 bill, how much change did she receive?

Answer: _____

10. **Complex Calculation:**

$(50.123 \times 1.5) - (23.456 \div 2.3) + 17.789 =$ _____

11. **Challenge Question:**

Divide 256.789 by 12.34 and then add 15.123 to the result.

Answer: _____

Part 6: Real-World Application

12. **Word Problem:**

A recipe calls for 0.375 liters of oil per serving. How much oil is needed for 8.5 servings?

Answer: _____

13. Practical Problem:

A board is 22.567 meters long. If pieces of 4.123 meters each are cut from it, how many full pieces can be cut and how much length remains?

Answer: _____

Part 7: Bonus Challenge

14. Bonus Problem:

A machine processes 0.123 kg of raw material per minute. How much raw material is processed in 245.6 minutes?

Answer: _____

15. Challenge Puzzle:

Multiply 9.876 by 4.321 and then divide the product by 3.210.

Answer: _____

This worksheet presents advanced challenges with various operations on decimals, including real-life applications and word problems to deepen the understanding and critical thinking of grade 4 students.

—BE CHAMPION—