

Educational Material

Answer Key: Add and Subtract Decimals

Grade 7 Mathematics - Medium Difficulty

Total Marks: 40

Section A: Basic Addition and Subtraction

1. $23.4 + 15.7 = 39.1$
2. $67.89 + 23.4 = 91.29$
3. $156.7 - 89.3 = 67.4$
4. $45.67 - 28.9 = 16.77$
5. $123.456 + 67.89 = 191.346$
6. $234.5 - 167.89 = 66.61$
7. $89.7 + 123.45 + 67.8 = 280.95$
8. $456.78 - 289.456 = 167.324$
9. $12.345 + 67.8 + 123.45 = 203.595$
10. $789.4 - 456.789 = 332.611$

Section B: Mixed Operations

11. $45.6 + 23.78 - 12.9 = 56.48$
12. $123.4 - 67.89 + 45.6 = 101.11$
13. $234.56 + 78.9 - 156.78 = 156.68$
14. $67.8 - 23.456 + 89.7 = 134.044$
15. $345.67 + 123.4 - 234.56 + 67.8 = 302.31$
16. $456.7 - 234.89 + 123.45 - 67.8 = 277.46$
17. $789.45 + 123.6 - 456.78 + 234.5 = 690.77$
18. $234.5 - 123.67 + 456.8 - 234.56 = 333.07$

Section C: Word Problems

19. $\pounds 12.45 + \pounds 3.67 + \pounds 5.89 = \pounds 22.01$
20. $\pounds 145.67 + \pounds 23.45 - \pounds 67.89 = \pounds 101.23$
21. $2.5 + 1.75 + 0.85 = 4.1 \text{ kg}$
22. $3.7 + 4.85 + 2.95 = 11.5 \text{ km}$
23. $\pounds 1,250.50 - \pounds 345.67 - \pounds 234.89 - \pounds 156.75 = \pounds 513.19$

$$24. 45.67 + 23.8 - 12.45 = \mathbf{57.02 \text{ mL}}$$

Section D: Problem Solving Challenges

$$25. 23.4 + \mathbf{8.23} - 12.67 = 18.9$$

$$26. \text{Estimate: } \mathbf{\text{Greater than 100}}$$
 ($34 + 29 + 31 + 7 = 101$ approximately)

$$27. 2.75 + 3.2 + 2.95 - 1.85 = \mathbf{7.05 \text{ kg}}$$

$$28. \mathbf{22.1, 25.3}$$
 (adding 3.2 each time)

$$29. \pounds 2.45 + \pounds 1.67 + \pounds 3.89 = \pounds 8.01. \mathbf{\text{Yes, he has enough. Change = } \pounds 0.76}$$

$$30. 156.7 - 34.85 - 23.9 - 45.67 = \mathbf{52.28 \text{ cm}}$$

Teaching Notes

Common Mistakes to Watch For:

- **Alignment:** Not aligning decimal points when adding/subtracting
- **Placeholders:** Forgetting to include zeros as placeholders
- **Word Problems:** Misreading whether to add or subtract
- **Mixed Operations:** Incorrect order of operations with multiple steps

Extension Activities:

- Create decimal word problems using real store prices
- Practice estimating before calculating exact answers
- Use a calculator to check difficult calculations
- Research decimal usage in sports (times, distances, scores)

Assessment Criteria:

- **Excellent (36-40 marks):** Confident with all operations, minimal errors
 - **Good (30-35 marks):** Mostly accurate, minor calculation mistakes
 - **Satisfactory (24-29 marks):** Basic understanding, some alignment issues
 - **Needs Support (<24 marks):** Requires additional practice with decimal concepts
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This answer key corresponds to: add-subtract-decimals.md