

Significant Figures Practice Problems

Determine how many significant figures are in the following numbers:

- | | |
|---------------------------|----------------------------|
| 1. 8637 | 11. 5.010×10^{-2} |
| 2. 0.057 | 12. 0.00070 |
| 3. 730 | 13. 30450100 |
| 4. 93010 | 14. 690. |
| 5. 8020.0 | 15. 4000 |
| 6. 4030.0010 | 16. 130.070 |
| 7. 0.00620 | 17. 0.0001 |
| 8. 203 | 18. 0.002080 |
| 9. 8.24×10^3 | 19. 3250 |
| 10. 5.40×10^{-3} | 20. 8.00×10^5 |

Carry out the following calculations and correct the answer to the appropriate number of significant figures:

1. $334.54 + 217 =$
2. $45.1 / 1.5 =$
3. $2.11 \times 10^3 / 34 =$
4. $0.0010 - 0.11 =$
5. $450 / 114 =$
6. $298.01 + 4.112 =$
7. $84 \times 31.221 =$
8. $55.04 + 8.2 + 22.012 =$
9. $(32.1 \times 5.00) / 0.076 =$
10. $(0.86 + 7.1 + 2.3) / 4.200 =$

Significant Figures Practice Problems

Determine how many significant figures are in the following numbers:

- 8637 (4)
- 0.057 (2)
- 730 This is ambiguous.
- 93010 This is ambiguous.
- 8020.0 (5)
- 4030.0010 (8)
- 0.00620 (3)
- 203 (3)
- 8.24×10^3 (3)
- 5.40×10^{-3} (3)
- 5.010×10^{-2} (4)
- 0.00070 (2)
- 30450100
690. (3)
- 4000 This is ambiguous.
- 130.070 (6)
- 0.0001 (1)
- 0.002080 (4)
- 3250 This is ambiguous.
- 8.00×10^5 (3)

Carry out the following calculations and correct the answer to the appropriate number of significant figures:

- $334.54 + 217 = 552$
- $45.1 / 1.5 = 30.$ (or 3.0×10^1)
- $2.11 \times 10^3 / 34 = 62$
- $0.0010 - 0.11 = -0.11$
- $450 / 114 = 3.9$ This is ambiguous.
- $298.01 + 4.112 = 302.12$
- $84 \times 31.221 = 2600$ (or 2.6×10^3)
- $55.04 + 8.2 + 22.012 = 85.3$
- $(32.1 \times 5.00) / 0.076 = 2100$ (or 2.1×10^3)
- $(0.86 + 7.1 + 2.3) / 4.200 = 2.44$