

Answer Key to Homework on Significant Figures

1. Determine the number of significant figures in:
 - a) $0.099990 = 5$
 - b) $3.0002 = 5$
 - c) $233.023 = 6$
 - d) $3.002 \times 10^{-3} = 4$
2. $319.15 - 32.614 = 286.54$
3. $104.630 + 27.08362 + 0.61 = 132.32$
4. $125 - 0.23 + 4.109 = 129$
5. $2.02 \times 2.5 = 5.0$
6. $600.0 / 5.2302 = 114.7$
7. $0.0032 \times 273 = 0.87$
8. $(5.5)^3 = 1.7 \times 10^2$
9. $0.556 \times (40 - 32.5) = 4$
10. $45 \times 3.00 = 1.4 \times 10^2$
11. $(6.00 / 1.235) + 3.0 + (6.35 / 4.10) = 9.4$
12. What is the average of 0.1707233, 0.1713032, 0.1720, 0.17041, and 0.17? =0.17

Hint: To find an average add up all the numbers/terms and divide the answer by how many terms there are in the question (in this case 5).