Rounding to Decimal Points Worked Solutions

1. Round 3.4 to the nearest whole number. 3 (look at tenths: $4 < 5$, round down).
2. Round 7.6 to the nearest whole number. 8 (look at tenths: $6 \geq 5$, round up).
3. Round 2.31 to 1 decimal place. 2.3 (look at hundredths: $1 < 5$, round down).
4. Round 5.68 to 1 decimal place. 5.7 (look at hundredths: $8 \geq 5$, round up).
5. Round 9.24 to 1 decimal place. 9.2 (look at hundredths: $4 < 5$, round down).
6. Round 4.86 to 1 decimal place. 4.9 (look at hundredths: $6 \geq 5$, round up).
7. Round 1.73 to 1 decimal place. 1.7 (look at hundredths: $3 < 5$, round down).
8. Round 6.15 to 1 decimal place. 6.2 (look at hundredths: $5 \geq 5$, round up).
9. Round 8.42 to 1 decimal place. 8.4 (look at hundredths: $2 < 5$, round down).
10. Round 0.27 to 1 decimal place. 0.3 (look at hundredths: $7 \geq 5$, round up).
11. Round 3.141 to 2 decimal places. 3.14 (look at thousandths: $1 < 5$, round down).
12. Round 5.678 to 2 decimal places. 5.68 (look at thousandths: $8 \geq 5$, round up).
13. Round 7.204 to 2 decimal places. 7.20 (look at thousandths: $4 < 5$, round down).
14. Round 9.995 to 2 decimal places. 10.00 (look at thousandths: $5 \geq 5$, round up: $9.99 \to 10.00$).
15. Round 12.49 to the nearest whole number. 12 (look at tenths: $4 < 5$, round down).
16. Round 12.50 to the nearest whole number. 13 (look at tenths: $5 \geq 5$, round up).
17. Round 4.04 to 1 decimal place. 4.0 (look at hundredths: $4 < 5$, round down).
18. Round 7.89 to 1 decimal place. 7.9 (look at hundredths: $9 \geq 5$, round up).
19. Round 2.66 to 1 decimal place. 2.7 (look at hundredths: $6 \geq 5$, round up).
20. Round 5.05 to 1 decimal place. 5.1 (look at hundredths: $5 \geq 5$, round up).
21. Round 3.141 to 2 decimal places. 3.14 (look at thousandths: $1 < 5$, round down).
22. Round 2.718 to 2 decimal places. 2.72 (look at thousandths: $8 \geq 5$, round up).
23. Round 14.37 to 1 decimal place. 14.4 (look at hundredths: $7 \geq 5$, round up).
24. Round 8.05 to 1 decimal place. 8.1 (look at hundredths: $5 \geq 5$, round up).
25. Round 6.666 to 2 decimal places. 6.67 (look at thousandths: $6 \geq 5$, round up).
26. Round 2.349 to 2 decimal places. 2.35 (look at thousandths: $9 \geq 5$, round up).
27. Round 0.995 to 2 decimal places. 1.00 (look at thousandths: $5 \geq 5$, round up: $0.99 \to 1.00$).
28. Round 17.499 to the nearest whole number. 17 (look at tenths: $4 < 5$, round down).
29. Round 17.500 to the nearest whole number. 18 (look at tenths: $5 \geq 5$, round up).
30. Round 3.045 to 2 decimal places. 3.05 (look at thousandths: $5 \geq 5$, round up).
31. Round 9.994 to 2 decimal places. 9.99 (look at thousandths: $4 < 5$, round down).
32. Round 12.444 to 2 decimal places. 12.44 (look at thousandths: $4 < 5$, round down).
33. Round 5.555 to 2 decimal places. 5.56 (look at thousandths: $5 \geq 5$, round up).
34. Round 0.074 to 1 decimal place. 0.1 (look at hundredths: $7 \geq 5$, round up).
35. Round 0.074 to 2 decimal places. 0.07 (look at thousandths: $4 < 5$, round down).
36. Fill in: $4.27 \approx 4.\square$ (1 d.p.). $4.27 \approx 4.3$ (hundredths $7 \geq 5$, round up).
37. Fill in: $8.196 \approx 8.\square\square$ (2 d.p.). $8.196 \approx 8.20$ (thousandths $6 \geq 5$, round up).
38. Is $6.84 \to 6.9$ correct to 1 d.p.? Explain. Yes. Hundredths digit is $4 < 5$, so 6.8 stays. Wait—$4 < 5$ means round down, so $6.84 \to 6.8$. This is incorrect! The correct answer is 6.8.
39. A student says 4.249 rounds to 4.3 to 1 d.p. Explain. Incorrect. Look at hundredths: $4 < 5$, so round down: $4.249 \to 4.2$.
40. A student says 7.995 rounds to 7.99 to 2 d.p. Explain. Incorrect. Look at thousandths: $5 \geq 5$, round up: $7.995 \to 8.00$.
41. Which is greater after 1 d.p.: 6.44 or 6.45? $6.44 \to 6.4$, $6.45 \to 6.5$. 6.5 is greater.
42. Which is smaller after 2 d.p.: 3.104 or 3.099? $3.104 \to 3.10$, $3.099 \to 3.10$. They are equal after rounding.
43. Complete: $8.\square4$ rounds to 8.5 (1 d.p.). $\square = 4$ ($8.44 \to 8.4$)? No. If $\square = 5$, $8.54 \to 8.5$. So $\square = 5$.
44. Complete: $3.4\square8$ rounds to 3.45 (2 d.p.). $\square = 4$ ($3.448 \to 3.45$).

45. Write two numbers that round to 6.2 (1 d.p.). E.g. 6.15 and 6.24 (any 6.15 to 6.24).

46. A measurement is 3.276 m. Round to 2 decimal places. 3.28 m (thousandths $6 \geq 5$, round up).

47. Round 19.995 to 2 decimal places. 20.00 (thousandths $5 \geq 5$, round up).

48. Round 0.999 to 2 decimal places. 1.00 (thousandths $9 \geq 5$, round up).

49. Round 4.444 to 2 decimal places. 4.44 (thousandths $4 < 5$, round down).

50. Explain why 5.05 and 5.04 round to different tenths. $5.05 \to 5.1$ (hundredths $5 \geq 5$ rounds up). $5.04 \to 5.0$ (hundredths $4 < 5$ rounds down). The hundredths digit differs.