

ROUNDING TO SIGNIFICANT FIGURES

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

- | | | | | | |
|-----|---------------------|---------|-----|-------------------------------|-------------------|
| 1. | 42 to 1 s.f. | 40 | 2. | 567 to 1 s.f. | 600 |
| 3. | 789 to 1 s.f. | 800 | 4. | 123 to 2 s.f. | 120 |
| 5. | 456 to 2 s.f. | 460 | 6. | 789 to 2 s.f. | 790 |
| 7. | 1234 to 2 s.f. | 1200 | 8. | 5678 to 2 s.f. | 5700 |
| 9. | 999 to 2 s.f. | 1000 | 10. | 1001 to 2 s.f. | 1000 |
| 11. | 0.123 to 1 s.f. | 0.1 | 12. | 0.456 to 1 s.f. | 0.5 |
| 13. | 0.789 to 1 s.f. | 0.8 | 14. | 0.123 to 2 s.f. | 0.12 |
| 15. | 0.456 to 2 s.f. | 0.46 | 16. | 0.789 to 2 s.f. | 0.79 |
| 17. | 1.234 to 2 s.f. | 1.2 | 18. | 5.678 to 2 s.f. | 5.7 |
| 19. | 9.999 to 2 s.f. | 10 | 20. | 0.00123 to 1 s.f. | 0.001 |
| 21. | 100.5 to 3 s.f. | 101 | 22. | 9999 to 3 s.f. | 10000 |
| 23. | 0.009876 to 2 s.f. | 0.0099 | 24. | 123456 to 3 s.f. | 123000 |
| 25. | 0.0005678 to 2 s.f. | 0.00057 | 26. | 3.456×10^3 to 2 s.f. | 3.5×10^3 |

27. 2.345×10^{-2} to 2 s.f. | 2.3×10^{-2} 28. 9.876×10^5 to 1 s.f. | 1×10^6
29. 6.789×10^{-3} to 1 s.f. | 7×10^{-3} 30. 5.432×10^4 to 3 s.f. | 5.43×10^4

MASTER QUESTIONS



- M1. The length of a rod is 2.345 metres. Round this to 2 significant figures. | 2.3 metres
- M2. The mass of a compound is 0.0054321 grams. Round this to 2 significant figures. | 0.0054 grams
- M3. The Earth-Moon distance is 384400 km. Round this to 3 significant figures. | 384000 kilometres
- M4. Light travels at 299792458 m/s. Round this speed to 3 significant figures. | 300000000 metres per second
- M5. A circle has radius 5.678 cm. Using $\pi=3.14$, find its area to 3 significant figures. | 101 square centimetres
- M6. A hydrogen atom's radius is 0.000000000037 m. Round this to 1 significant figure. | 0.00000000004 metres
- M7. A voltage reading is 12.345 volts. Round this to 3 significant figures. | 12.3 volts
- M8. Human hair diameter is 0.000081 metres. Round this to 1 significant figure. | 0.00008 metres
- M9. A field measures 12345.67 m². Round this area to 4 significant figures. | 12350 square metres
- M10. A car travels 567.89 km in 12.3 hours. Find its average speed to 3 significant figures in km/h. | 46.2 kilometres per hour