

National 5 Homework

Numerical Skills

Rounding and Significant Figures

1. The attendance at a concert was 35, 632. Round this to 3 significant figures.
2. The weight of a cruise ship is 225 282 tons. Round this value to 2 significant figures.
3. The total amount donated for a charity in a weekend was £6 474 844. Round this amount to 3 significant figures.
4. Calculate the area of a circle with radius 13cm, giving your answer to 3 significant figures.
5. Calculate  $4.84 \times 10^7 \times 24$ . Give your answer in scientific notation correct to 2 significant figures.
6. Calculate the circumference of a circle with diameter 11.5cm. Round your answer correct to 2 significant figures.
7. Write 0.0204325 correct to 2 significant figures.
8. The circumference of the Earth is 40 075km. The circumference of a newly discovered planet is one eighth of this. Work out the circumference of this planet, correct to 3 significant figures.
9. Calculate  $7.53 \times 10^{11} \div 63$ . Give your answer in scientific notation correct to 3 significant figures.
10. Round 5.00246, correct to 3 significant figures.

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11. Simplify  $3p^{2/3}(2p - 3p^{-2/3})$

12. Rationalise the denominator and simplify  $\frac{6}{\sqrt{8}}$ .

13. Simplify  $\sqrt{27} + \sqrt{48} + 2\sqrt{3}$

14. Write down the 6 laws of indices.