
Standard form worksheet

Mathematics for A-level Science

Practice your understanding

Convert the following numbers into standard form:

- | | |
|---------------|--------------|
| 1. 32 000 | 5. 9 230 000 |
| 2. 0.0006 | 6. 0.0000405 |
| 3. 104 000 | 7. 0.002019 |
| 4. 18 200 000 | 8. 30 200 |

Convert the following numbers from standard form into decimal notation:

- | | |
|--------------------------|--------------------------|
| 9. 3.26×10^4 | 13. 8×10^{-6} |
| 10. 8.4×10^{-3} | 14. 1.3×10^8 |
| 11. 7.29×10^7 | 15. 2.3×10^{-4} |
| 12. 1.26×10^2 | 16. 5.001×10^6 |

17. Using the formula $\text{Circumference} = 3.14 \times \text{radius}$, and given that the mean radius of the Earth is 6 378 000 m, calculate the approximate circumference of the Earth leaving your answer in standard form to two significant figures.
18. There are 86 400 seconds in a day. Calculate the number of seconds in a year leaving your answer in standard form to two significant figures.
19. The current world population is approximately 7.4×10^9 people. The United Kingdom population accounts for 0.88% of the total world population. Using this information, approximate the number of people living in the United Kingdom leaving your answer as a decimal number.