

84. Understanding and Using Standard Index Form

Practice Questions

1. Write 5000 in standard form.
2. Express 0.0042 in standard form.
3. Convert 3.6×10^3 to normal form.
4. Convert 7.2×10^{-2} to normal form.
5. Write 8,650,000 in standard form.
6. Express 0.000081 in standard form.
7. Multiply $(2 \times 10^4) \times (3 \times 10^2)$ in standard form.
8. Divide $(4 \times 10^6) \div (2 \times 10^3)$ in standard form.
9. Convert 9.1×10^5 to a normal number.
10. Express 0.00056 in standard form.

Scenario Questions

1. A spaceship travels at 3×10^5 km per hour. Convert this to normal form.
2. A bacteria population is 7.2×10^8 . Express it as a normal number.
3. A planet is 9.1×10^7 km away from Earth. Convert this to normal form.
4. A computer chip processes 2.4×10^6 instructions per second. Convert this to normal form.
5. The Sun is 1.496×10^8 km from Earth. Write it as a normal number.
6. A cell measures 4.5×10^{-6} m in diameter. Express it in decimal form.
7. A virus is 1.2×10^{-9} m in size. Convert it to decimal form.
8. A scientific measurement is recorded as 5.6×10^3 mm. Express it as a normal number.
9. A telescope detects a star 3.9×10^{12} km away. Write it in full.
10. A lightwave has a frequency of 1.5×10^{14} Hz. Convert it to normal form.

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Practice Questions

1. 5×10^3
2. 4.2×10^{-3}
3. 3600
4. 0.072
5. 8.65×10^6
6. 8.1×10^{-5}
7. 6×10^6
8. 2×10^3
9. 910,000
10. 5.6×10^{-4}

Scenario Questions

1. 300,000 km/h
2. 720,000,000
3. 91,000,000 km
4. 2,400,000 instructions per second
5. 149,600,000 km
6. 0.0000045 m
7. 0.0000000012 m
8. 5,600 mm
9. 3,900,000,000,000 km
10. 150,000,000,000,000 Hz

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