English Spanish

9.4–9.6 Quiz

Check It Out
Progress Check
BigIdeasMath.com

Evaluate the expression. *(Section 9.4)*

1. $(-4.8)^{-9} \cdot (-4.8)^{9}$

2. $\frac{5^4}{5^7}$

Simplify. Write the expression using only positive exponents. *(Section 9.4)*

3. $8d^{-6}$

4. $\frac{12x^5}{4x^7}$

Tell whether the number is written in scientific notation. Explain. *(Section 9.5)*

5. 23×10^9

6. 0.6×10^{-7}

Write the number in standard form. *(Section 9.5)*

7. 8×10^6

8. 1.6×10^{-2}

Write the number in scientific notation. *(Section 9.6)*

9. 0.00524

10. 892,000,000

Multiply. Write your answer in scientific notation. *(Section 9.6)*

11. $(9 \times 10^3) \times (4 \times 10^4)$

12. $(2 \times 10^{-5}) \times (3.1 \times 10^{-2})$

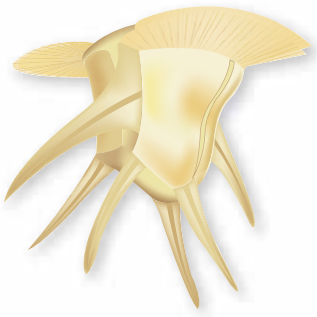
13. **PLANETS** The table shows the equatorial radii of the eight planets in our solar system. *(Section 9.5)*

Planet	Equatorial Radius (km)
Mercury	2.44×10^3
Venus	6.05×10^3
Earth	6.38×10^3
Mars	3.4×10^3
Jupiter	7.15×10^4
Saturn	6.03×10^4
Uranus	2.56×10^4
Neptune	2.48×10^4

a. Which planet has the second smallest equatorial radius?

b. Which planet has the second greatest equatorial radius?

14. **OORT CLOUD** The Oort cloud is a spherical cloud that surrounds our solar system. It is about 2×10^5 astronomical units from the Sun. An astronomical unit is about 1.5×10^8 kilometers. How far is the Oort cloud from the Sun in kilometers? *(Section 9.6)*



15. **ORGANISM** A one-celled, aquatic organism called a dinoflagellate is 1000 micrometers long. *(Section 9.4)*

a. One micrometer is 10^{-6} meter. What is the length of the dinoflagellate in meters?

b. Is the length of the dinoflagellate equal to 1 millimeter or 1 kilometer? Explain.