Name: _____

Scientific Notation

Solve the problems.

1 Which of the following expressions is equivalent to 4,325,000,000?

A 4.325×10^{-9}

B 4.325×10^{-6}

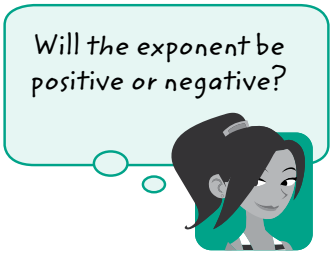
C 4.325×10^{6}

D 4.325×10^{9}

Carson chose **A** as the correct answer. How did he get that answer?

_____

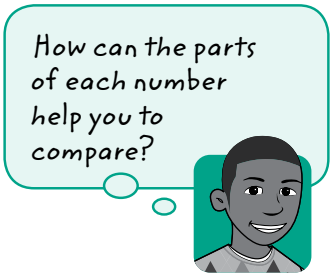
_____



2 The mass of Earth's moon is about 7×10^{22} kilograms. The mass of Jupiter is about 1.89×10^{27} kilograms. The mass of Jupiter is about how many times the mass of Earth's moon?

Show your work.

Solution: _____



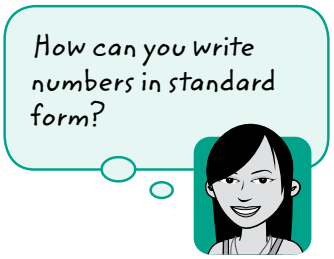
3 Last year a restaurant chain spent 3.3×10^{6} dollars opening new restaurants. This year the restaurant will spend 9.9×10^{5} dollars. Which statement is true?

A The restaurant spent $330,000 dollars last year.

B This year the restaurant will spend $9,900,000.

C The restaurant spent 6.6×10^{6} dollars more this year than last year.

D This year the restaurant will spend about 0.3 times the amount it did last year.



Solve.

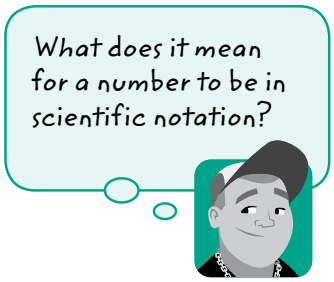
4 Which of the following numbers is NOT in scientific notation?

A 4.5×10^{-12}

B 3.025×10^{-9}

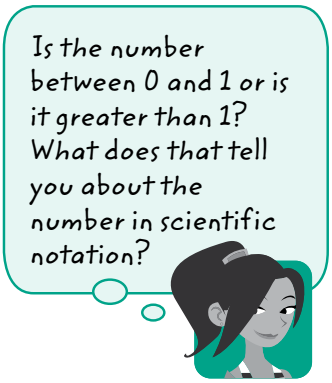
C 0.21×10^{7}

D 1.1×10^{10}



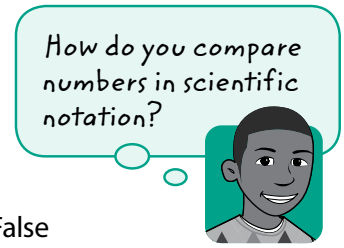
5 Write 0.0000003105 in scientific notation. Explain how you found your answer.

Show your work.



Solution: _____

6 The area of the Pacific Ocean is about 1.56×10^{8} square kilometers. The area of the East China Sea is about 1.2×10^{6} square kilometers. Tell whether each statement is *True* or *False*.



a. The area of the Pacific Ocean is about 15,600,000 square kilometers. ☐ True ☐ False

b. The area of the Pacific Ocean is about 130 times the area of the East China Sea. ☐ True ☐ False

c. The area of the East China Sea is about 130 times the area of the Pacific Ocean. ☐ True ☐ False

d. The area of the East China Sea is about 1,200,000 square kilometers. ☐ True ☐ False