

RSCS

Name: _____

Class: _____

Date: _____

HOMEWORK

A computer performs a calculation in 2.5×10^{-5} seconds to solve a math problem. How long does the computer need to calculate the solutions to 3×10^6 math problems?

Write your answer in standard form.

Light travels at approximately 2.998×10^5 kilometers per second. There are 6.048×10^5 seconds in one week. About how many kilometers does light travel in one week?

- A** 1.813×10^5 **C** 1.813×10^{11}
B 1.813×10^{10} **D** 1.813×10^{25}

The planet Mercury is approximately 6×10^7 miles from the Sun. The distance between the Sun and Mars is approximately 2×10^8 miles. **About** how many times farther from the Sun is Mars than Mercury?

- A** 2
B 3
C 20
D 30

The mass of Earth is 5.97×10^{24} kilograms. The mass of the Moon is 7.34×10^{22} kilograms.

About how many times as great is the mass of Earth than the mass of the Moon? Express your answer in scientific notation.

Show your work.

Answer _____ times

What is the value of the expression $\frac{3^{-3} \times 3^8}{3^6}$?

- A** $\frac{1}{81}$
- B** $\frac{1}{3}$
- C** 3
- D** 81

Adult humans have, on average, 25,000,000,000,000 red blood cells. What is that number written in scientific notation?

- A** 2.5×10^{12}
- B** 2.5×10^{13}
- C** 2.5×10^{14}
- D** 2.5×10^5