

HOMEWORK

- 1** A glass marble factory produces 4.5×10^4 marbles in 1,800 minutes. What is the factory's unit rate of production in marbles per minute? Write the answer in scientific notation.

Show your work.

Which operation do you need to use to solve this problem?



Solution: _____

- 2** Jason incorrectly simplified the expression $(4.7 \times 10^2) \times (6.2 \times 10^4)$. Circle each step that shows an error. Then correct each of those steps so that the expression is correctly simplified.

- A Step 1.** $4.7 \times 6.2 \times 10^2 \times 10^4$ _____
- B Step 2.** $(4.7 \times 6.2) \times (10^2 \times 10^4)$ _____
- C Step 3.** 29.14×10^8 _____
- D Step 4.** 2.914×10^6 _____

How do you multiply powers of 10?



- 3** Which is the **best** estimate for the product of 3.1×10^4 and 4.85×10^{-2} ?

- A** 1.5×10^{-8}
- B** 1.2×10^{-8}
- C** 1.2×10^3
- D** 1.5×10^3

A company spends a total of \$64,500,000 on salaries for its workers. If the company has 1.5×10^3 workers, what is the average salary per worker?

Show your work.

Stalactites are cone-shaped formations that hang from the ceilings of underground caverns. Stalactites can grow at the rate of about 0.005 inch per year. At this rate, what is the length of a stalactite that grows for 7.5×10^4 years?

Show your work.

The Moon takes about 28 days to orbit the Earth, going a distance of about 2.413×10^6 kilometers. About how many kilometers does the Moon travel during one day of its orbit around the Earth?

- A** 8.6×10^4 km
- B** 2.8×10^6 km
- C** 1.16×10^7 km
- D** 6.8×10^7 km