



Eggsactly!

name _____

Solving problems, using scientific notation (8.EE.A.4)

Solve each problem.

Show your work and write your answers using scientific notation.



1. In one year, 30% of all the eggs consumed were egg products such as liquid or powdered eggs. If that 30% equaled 2.286×10^{11} eggs, how many eggs altogether were consumed that year?

2. If food manufacturers produced three billion pounds of egg products each year, how much do they produce each month?

3. U.S. egg farmers produce about 79 billion eggs each year. If a hen on an egg farm lays 265 eggs a year, about how many egg-laying hens are there on U.S. egg farms?

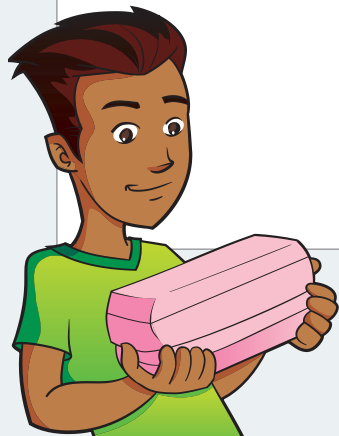
4. How much would it cost if 40 egg inspectors worked 60 hours a week for two weeks? Each inspector earns \$30.00 per hour.

5. About 0.05% of an egg white is the protein avidin. How much of the protein avidin is there in 250 eggs?

6. If a commercial egg facility processed 18 million eggs in eight hours, how many eggs would it process each hour?

Bonus: Use the following data to write a problem with an answer that can be written in scientific notation.

- There are about 300 million egg-laying hens on U.S. egg farms.
- The 79 billion eggs produced in the United States each year make up about 10% of the world's egg supply.
- We use about 60% of the 79 billion eggs as consumers.
- The foodservice industry uses about 9% of the 79 billion eggs.



Grade 8

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Answer Key

1. 7.62×10^{11}
2. 2.5×10^8
3. 2.98×10^8
4. 1.44×10^5
5. 1.25×10^{-1}
6. 2.25×10^6

BONUS

Problems and answers will vary.



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