## Unit 8, Lesson 1

Practice Problems

1. Find the area of each square. Each grid square represents 1 square unit.

2. Find the length of a side of a square if its area is:
a. 81 square inches
b. $\frac{4}{25} \mathrm{~cm}^{2}$
c. 0.49 square units
d. $m^{2}$ square units
3. Find the area of a square if its side length is:
a. 3 inches
b. 7 units
c. 100 cm
d. 40 inches
e. $x$ units
4. Evaluate $\left(3.1 \times 10^{4}\right) \cdot\left(2 \times 10^{6}\right)$. Choose the correct answer:
A. $5.1 \times 10^{10}$
B. $5.1 \times 10^{24}$
C. $6.2 \times 10^{10}$
D. $6.2 \times 10^{24}$
5. Noah reads the problem, "Evaluate each expression, giving the answer in scientific notation." The first problem part is: $5.4 \times 10^{5}+2.3 \times 10^{4}$. Noah says, "I can rewrite $5.4 \times 10^{5}$ as $54 \times 10^{4}$. Now I can add the numbers:
$54 \times 10^{4}+2.3 \times 10^{4}=56.3 \times 10^{4}$. Do you agree with Noah's solution to the problem? Explain your reasoning.
6. Select all the expressions that are equivalent to $3^{8}$.
A. $\left(3^{2}\right)^{4}$
B. $8^{3}$
С. $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$
D. $\left(3^{4}\right)^{2}$
E. $\frac{3^{6}}{3^{-2}}$
F. $3^{6} \cdot 10^{2}$
