## Unit 8, Lesson 2

## Practice Problems

1. A square has an area of 81 square feet. Select all the expressions that equal the side length of this square, in feet.
A. $\frac{81}{2}$
B. $\sqrt{81}$
C. 9
D. $\sqrt{9}$
E. 3
2. Write the exact value of the side length, in units, of a square whose area in square units is:
a. 36
b. 37
c. $\frac{100}{9}$
d. $\frac{2}{5}$
e. 0.0001
f. 0.11
3. Square $A$ is smaller than Square $B$. Square $B$ is smaller than Square $C$.


The three squares' side lengths are $\sqrt{26}, 4.2$, and $\sqrt{11}$.

What is the side length of Square A? Square B? Square C? Explain how you know.
4. Find the area of a square if its side length is:
a. $\frac{1}{5} \mathrm{~cm}$
b. $\frac{3}{7}$ units
c. $\frac{11}{8}$ inches
d. 0.1 meters
e. 3.5 cm
5. Here is a table showing the areas of the seven largest countries.
a. How much more area is there in Russia than in Canada?
b. The Asian countries on this list are Russia, China, and India. The American countries are Canada, the United States, and Brazil. Which has the greater total area: the three Asian countries, or the three American countries?

| country | area (in km ${ }^{2}$ ) |
| :---: | :---: |
| Russia | $1.71 \times 10^{7}$ |
| Canada | $9.98 \times 10^{6}$ |
| China | $9.60 \times 10^{6}$ |
| United States | $9.53 \times 10^{6}$ |
| Brazil | $8.52 \times 10^{6}$ |
| Australia | $6.79 \times 10^{6}$ |
| India | $3.29 \times 10^{6}$ |

6. Select all the expressions that are equivalent to $10^{-6}$.
A. $\frac{1}{1000000}$
B. $\frac{-1}{1000000}$
C. $\frac{1}{10^{6}}$
D. $10^{8} \cdot 10^{-2}$
E. $\left(\frac{1}{10}\right)^{6}$
F. $\frac{1}{10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 10}$
