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

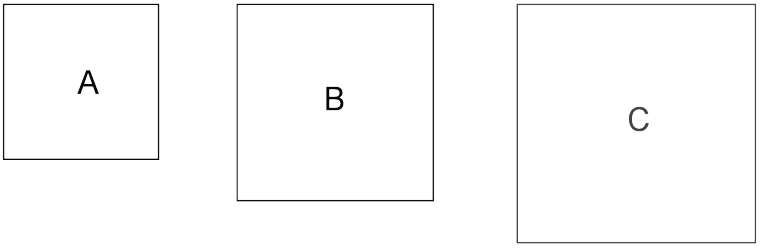
   c. $\frac{100}{9}$

   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. $\frac{1}{5}$ cm

b. $\frac{3}{7}$ units

c. $\frac{11}{8}$ inches

d. 0.1 meters

e. 3.5 cm

(From Unit 8, Lesson 1.)

5. Here is a table showing the areas of the seven largest countries.

country	area (in km^2)
Russia	1.71×10^7
Canada	9.98×10^6
China	9.60×10^6
United States	9.53×10^6
Brazil	8.52×10^6
Australia	6.79×10^6
India	3.29×10^6

   a. How much larger is Russia than 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?

(From Unit 7, Lesson 15.)

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. $\frac{1}{10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 10}$

(From Unit 7, Lesson 5.)