

# Rational or Irrational? Answer Key

1.  $\frac{6}{8}$ , 592,  $-\frac{4}{5}$

2. various answers

3. Be sure students convey that rational numbers are numbers that can be written as a fraction or ratio of *integers*.

4.  $\sqrt{\frac{2}{5}}$ ,  $\sqrt{1.6}$ ,  $3\pi$

5. various answers

6. Be sure students convey that irrational numbers are numbers that cannot be written as a fraction or ratio of integers.

7. The correct answer is C.

a. If the length was 12 and the width was 6:

$$A = LW$$

$$A = 12(6)$$

$$P = 2(12) + 2(6)$$

$$P = 24 + 12$$

$P = 36$ , a rational number because it can be written as  $\frac{36}{1}$ .

b. If the length was  $\sqrt{9}$  and the width was  $\sqrt{2}$ :

$$A = LW$$

$$A = \sqrt{9}(\sqrt{2})$$

$$P = 2(\sqrt{9}) + 2(\sqrt{2})$$

$P = 2(\sqrt{9}) + 2(\sqrt{2})$  There is no way to write this number as a ratio or fraction of two integers. It is an irrational number.