

3.1

Squares and Square Roots*MathLinks 8, pages 80–87***Key Ideas Review***Write the term from column B that matches the correct statement in column A.*

A	B
1. A whole number that has only two factors, 1 and itself. _____	a) Prime factorization
2. The product of the same two numbers. _____	b) Square number
3. The number that equals a given value when you multiply the number by itself. _____	c) Perfect square
4. The product of the same two factors. _____	d) Prime number
5. A number written as the product of its prime factors. _____	e) Square root

Practise and Apply

6. a) Determine the prime factorization of 36. Show your work.

- b) Is 36 a perfect square? Explain your thinking.

- c) Draw a quadrilateral that shows whether or not 36 is a perfect square. Label its side lengths.

7. Janie's backyard has an area of 100 m^2 .



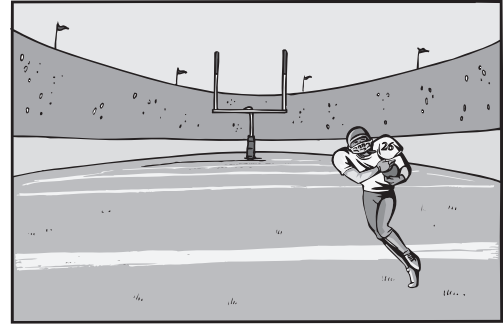
- a) Determine the prime factorization of 100. Show your work.

Name: _____

Date: _____

b) Is 100 a perfect square? Explain your thinking.

9. Alasie's local football field has an area of 1296 m^2 . Is 1296 a perfect square? Show your thinking.



c) Draw a quadrilateral that shows whether or not 100 is a perfect square. Label its side lengths.

8. Write the prime factorization of each number. Circle the perfect squares.

a) 164

b) 196

10. Ingrid says that she knows that 9 and 16 are perfect squares, and that 10 is not. Is she correct? Explain your thinking.

c) 225

d) 325