Name: _____ Date: _____

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

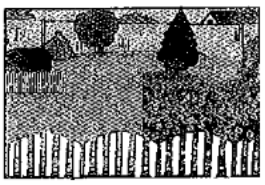
Practise and Apply

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.

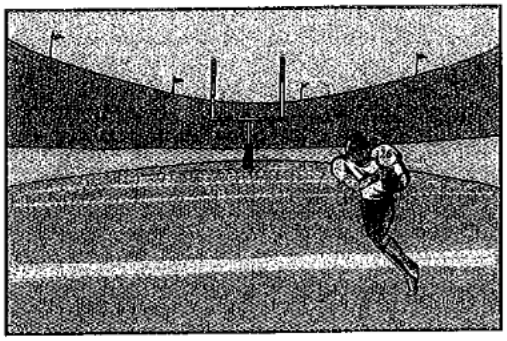
c) Draw a quadrilateral that shows whether or not 100 is a perfect square. Label its side lengths.

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

a) 164 b) 196

c) 225 d) 325

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



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