Lesson 1.2: Squares and Square Roots

1. Find.

a) 6^2 **b)** 11^2 **c)** 5^2

2. Find a square root of each number.

a) 49 **b)** 64 **c)** 196

3. **a)** List the factors of each number in ascending order.
Which numbers are squares? How do you know?

i) 70 **ii)** 144 **iii)** 180

b) Find a square root of each square number in part a.

4. The factors of each number are listed in ascending order.
Which numbers are square numbers?
Find a square root of each square number.

a) 216: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 27, 36, 54, 72, 108, 216

b) 196: 1, 2, 4, 7, 14, 28, 49, 98, 196

c) 441: 1, 3, 9, 21, 49, 147, 441

5. Find a number whose square root is 24.

6. Find the square root of each number.

a) 12^2 **b)** 15^2 **c)** 37^2

7. Find the square of each number.

a) $\sqrt{9}$ **b)** $\sqrt{121}$ **c)** $\sqrt{841}$

8. Use prime factorization to find the square root of each of the following:

a) 196

b) 900

9. Use the multiples of 100 method to find each square root, if possible:

a) $\sqrt{400}$

b) $\sqrt{250000}$

c) $\sqrt{144000}$

d) $\sqrt{196000000}$