

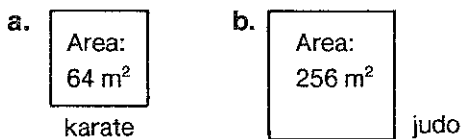
Assignment #3

Squares & Roots

1. Evaluate.

- a. $\sqrt{4}$ b. $\sqrt{81}$ c. $\sqrt{16}$
 d. $\sqrt{121}$ e. $\sqrt{17^2}$ f. $\sqrt{400}$
 g. $\sqrt{169}$ h. $\sqrt{0}$ i. $\sqrt{23^2}$


2. Square mats are used in karate and judo. Find the length of a side of the mat.



3. Evaluate.

- a. $\sqrt{3 \times 3 \times 7 \times 7}$
 b. $\sqrt{2 \times 2 \times 11 \times 11}$
 c. $\sqrt{2 \times 2 \times 3 \times 3 \times 5 \times 5}$
 d. $\sqrt{5 \times 5 \times 7 \times 7 \times 11 \times 11}$

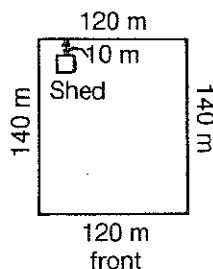
4. Find the principal square root.

-  a. 484 b. 529 c. 625
 d. 324 e. 961 f. 1089
 g. 1764 h. 4356 i. 5625

8. Evaluate.

- a. $\sqrt{4900}$ b. $\sqrt{3600}$ c. $\sqrt{10\ 000}$
 d. $\sqrt{90\ 000}$ e. $\sqrt{14\ 400}$ f. $\sqrt{40\ 000}$

9. Mr. Sugden's farm equipment shed has a square base that covers an area of 729 m^2 . How far is the shed from the front of his property?



14. Find a square root of each number.

- a) 3^2 b) 6^2
 c) 10^2 d) 117^2

15. Find the square of each number.

- a) $\sqrt{4}$ b) $\sqrt{121}$
 c) $\sqrt{225}$ d) $\sqrt{676}$

19. Order from least to greatest.

- a) $\sqrt{36}$, 36, 4, $\sqrt{9}$
 b) $\sqrt{400}$, $\sqrt{100}$, 19, 15
 c) $\sqrt{81}$, 81, $\sqrt{100}$, 11
 d) $\sqrt{49}$, $\sqrt{64}$, $\sqrt{36}$, 9

21. Take It Further

a) Find the square root of each palindromic number.

A palindromic number is a number that reads the same forward and backward.

- i) $\sqrt{121}$
 ii) $\sqrt{12\ 321}$
 iii) $\sqrt{1\ 234\ 321}$
 iv) $\sqrt{123\ 454\ 321}$

b) Continue the pattern.

Write the next 4 palindromic numbers in the pattern and their square roots.