Name_____

Date_____Period_____

Lesson 1

Define each of the following.

a. Square Root
b. Principle Root
c. Index
d. Radicand
e. Cube Root

Take the root of each of the following.

1) $\sqrt{81}$	2) $5\sqrt{36}$	3) $-2\sqrt{64}$
4) $\frac{2}{3}\sqrt{9}$	5) $\pm\sqrt{196}$	6) $\frac{1}{2}\sqrt{144}$

Lessons 2 and 3

Rewrite each in simplest radical form.

1) $\sqrt{20}$	2) $\sqrt{60}$	3) $\sqrt{300}$
4) $\sqrt{54}$	5) $\sqrt{50}$	6) $\sqrt{8}$

Lesson 4

Solve each quadratic equation. Write your answer in simplest radical form.

1) $\frac{1}{2}x^2 = 20$

2) $3x^2 - 7 = 53$

3) $\frac{2x}{9} = \frac{6}{x}$

4) $4x^2 - 13 = x^2 + 14$

Lesson 5

Solve each cubic function.

1) $2x^3 - 60 = 65 + x^3$

2) $-3x^3 = 24$