

Names:

Section 11.1

1. Find

(a)  $\sqrt{144}$

(b)  $\sqrt{9}$

(c)  $\sqrt[3]{64}$

(d)  $\sqrt[3]{-216}$

2. Use your calculator to find to two decimal places.

(a)  $\sqrt{91}$

(b)  $\sqrt[3]{50}$

(c)  $\sqrt[3]{-11}$

(d)  $\sqrt[9]{-51}$

(e)  $\sqrt[10]{100}$

3. Simplify. Do not assume that the variables are positive.

(a)  $\sqrt[4]{\frac{x^{12}y^{16}}{z^{20}}}$

(b)  $\sqrt[3]{-8a^6b^9}$

4. Simplify. Assume that the variables are positive.

(a)  $\sqrt[5]{243x^{10}y^{15}z^{35}}$

(b)  $\sqrt[6]{a^{24}b^{48}c^{30}}$

5. Two cars leave an intersection at the same time, one heading north and the other heading east. At the end of two hours, one car has travelled 86 miles and the cars are 160 miles apart. How far (to the nearest tenth of a mile) has the other car travelled?

6. Solve  $\begin{cases} 2x = 4y - 7 \\ 3x - 6y = 5 \end{cases}$