## MA90 Exercises for section 8.1

## **Numeric Response**

1. Find the root.

$$\sqrt{25}$$

If the root does not exist as a real number, write not a real number.

.

2. Find the root.

$$-\sqrt{64}$$

If the root does not exist as a real number, write not a real number.

.

3. Find the root.

$$-\sqrt[3]{-216}$$

If the root does not exist as a real number, write no solution.

.

4. Find the root.

$$-\sqrt[3]{27}$$

If the root does not exist as a real number, write no solution.

## **Short Answer**

1. Find the root.

$$\sqrt{-16}$$

If the root does not exist as a real number, write no solution.

.

2. Assume all variables are positive, and find the root.

$$\sqrt{\left(p+q\right)^2}$$

.

3. Assume all variables are positive, and find the root.

$$\sqrt{81x^2y^2}$$

.

4. Assume the variable is positive, and find the root.

$$\sqrt[3]{216x^3}$$

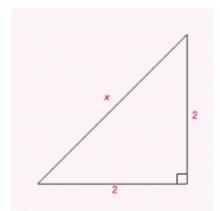
.

5. Simplify the pair of expressions.

$$\frac{3+\sqrt{81}}{2}$$
 and  $\frac{3-\sqrt{81}}{2}$ 

.

6. Find *x* in the right triangle.



# MA90 Exercises for section 8.1 Answer Section

### **NUMERIC RESPONSE**

- 1. ANS: 5
  - **PTS**: 1
- 2. ANS: -8
  - PTS: 1
- 3. ANS: 6
  - **PTS**: 1
- 4. ANS: -3
  - **PTS**: 1

### **SHORT ANSWER**

- 1. ANS: no solution
  - **PTS**: 1
- 2. ANS:
  - p+q
  - **PTS**: 1
- 3. ANS:
  - $9x \cdot y$
  - **PTS**: 1
- 4. ANS:
  - 6*x*
  - **PTS**: 1
- 5. ANS:
  - 6, -3
  - **PTS**: 1
- 6. ANS:
  - $2\sqrt{2}$
  - PTS: 1