Name: _____ Date: _____
Mrs. van der Vossen Math 8

# 3.1 Extra Practice

**1.** If the underlined word is incorrect, write the correct word in the blank.

**a)** The square of a number can be thought of as the area of a square.

_____

**b)** In the prime factorization of a perfect square, there is an odd number of each prime factor. _____

**c)** The square of a number is the number divided by itself.

_____

**d)** The square root of a number can be thought of as the side length of a rectangle. _____

**2.** Follow the instructions for each number below.

**a)** Write the prime factorization and the factorization statement.

**b)** Determine whether the number is a perfect square and justify your answer.

| | **Prime Factorization** | **Perfect Square?** |
|---|---|---|
| 35 | | Circle one: YES NO<br>Justify your answer: |
| 64 | | Circle one: YES NO<br>Justify your answer: |

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**3.** Complete the table.

| Side Length of Square | Side Length Squared | Area of Square |
|---|---|---|
| Example: 2 | 2 × 2 | 4 |
| **a)** _____ | 4 × 4 | 16 |
| **b)** 7 | _____ | 49 |
| **c)** 6 | 6 × 6 | _____ |
| **d)** 10 | _____ | _____ |

**4.** Determine the square roots. **Hint**: Look for patterns.

**a)** $\sqrt{100}$ _____ $\sqrt{225}$ _____ $\sqrt{400}$ _____

**b)** $\sqrt{400}$ _____ $\sqrt{625}$ _____ $\sqrt{900}$ _____

**c)** $\sqrt{100}$ _____ $\sqrt{144}$ _____ $\sqrt{196}$ _____

**d)** $\sqrt{225}$ _____ $\sqrt{324}$ _____ $\sqrt{441}$ _____

**5.** Find the area of the square, given its side length.

**a)** 7 cm

_____

**b)** 11 mm

_____

**c)** 15 m

_____

**d)** 22 cm

_____

**e)** 40 m

_____

**f)** 90 mm

_____

**6.** Find the side length of the square, given its area.

**a)** 100 $cm^2$

_____

**b)** 121 $mm^2$

_____

**c)** 169 $m^2$

_____

**d)** 256 $cm^2$

_____

**e)** 529 $mm^2$

_____

**f)** 2500 $m^2$

_____