**MATH 10C UNIT 2** **REVIEW** (Chapter 4 – Roots and Powers)

1. Nabi is trying to estimate the value of . What two numbers should she use in her estimate? Explain your reasoning.

2. Locate each radical accurately on the number line.

 , , , , 

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3. Give the best description of each number as *rational number, irrational number, integer, whole number,* or *natural number*.

 a) 0 \_\_\_\_\_\_\_\_\_\_\_\_ b) 4.134134…\_\_\_\_\_\_\_\_\_ c)  \_\_\_\_\_\_\_\_\_\_ d) -8 \_\_\_\_\_\_\_\_\_\_\_\_\_

4. Write each radical in simplest form as an integer or mixed radical.

 a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Write each mixed radical as an entire radical.

 a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Write each power in radical form, then evaluate.

 a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 7. Write each power with a positive exponent; evaluate.

 a) 3-3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ c)  \_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d) \_\_\_\_\_\_\_\_\_\_\_\_\_

8. Use the exponent rules to simplify each expression; leave only positive exponents.

 a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ e) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_