Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_

**7.4B Estimating Square Roots\_Classwork**

*Objective: Approximate square roots (pre-req. for CCSS 8.NS.2*

*HW: (7.4A) p. 313 #20 – 23, 26 – 31, 43 (Solutions on p. A33)*

**WARM UP**

|  |
| --- |
| 1. Find the side length of a square with an area of 25 cm2 (7.1 NOTES)
 |
| 1. Find the side length of a cube with a volume of 343 in3 (7.2 NOTES)
 |
| 1. Find the radius of a circle with an area of 225π (7.1 NOTES)
 |

Which number is greater? EXPLAIN. (SAME AS O.Y.O. p. 312 #8 – 10)

|  |  |  |
| --- | --- | --- |
| 1.
 | 1.
 | 1.
 |

**CONTINUED ON BACK** $\rightarrow $

**SQUARE NUMBERS:** 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400



|  |
| --- |
| WATCH TUTORIAL VIDEO, LESSON 7.4, EXAMPLE 2, THEN DO O.Y.O. p. 311 #4 – 7 |

**EXAMPLES:**

|  |  |
| --- | --- |
| **Estimate** $\sqrt{23}$ **to the nearest (a) integer and (b) tenth.**1. $\sqrt{23}$ is between $\sqrt{16}$ and $\sqrt{25}$.

1. Guess and check the estimate of the square root to the nearest tenth.

4.52 = 20.254.72 = 22.094.82 = 23.04  | **Estimate** $-\sqrt{67}$ **to the nearest (a) integer and (b) tenth.** |

 ESTIMATE THE SQUARE ROOT TO THE NEAREST (a) INTEGER AND (b) TENTH.

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| --- | --- |
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