Wisdom Lane Middle School
Name:_____
Teacher: Mr. Tomeo

Homework #102

Date:_____
Period:_____

Square Roots

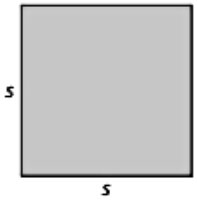
1. **Without a calculator** you should be able to **fill in the following tables**.

Examples of **Perfect Squares**				
$1^2 =$	$4^2 =$	$7^2 =$	$10^2 =$	$13^2 =$
$2^2 =$	$5^2 =$	$8^2 =$	$11^2 =$	$14^2 =$
$3^2 =$	$6^2 =$	$9^2 =$	$12^2 =$	$15^2 =$

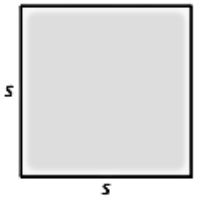
Examples of **Square Roots**				
$\sqrt{1} =$	$\sqrt{16} =$	$\sqrt{49} =$	$\sqrt{100} =$	$\sqrt{169} =$
$\sqrt{4} =$	$\sqrt{25} =$	$\sqrt{64} =$	$\sqrt{121} =$	$\sqrt{196} =$
$\sqrt{9} =$	$\sqrt{36} =$	$\sqrt{81} =$	$\sqrt{144} =$	$\sqrt{225} =$

Find the dimensions of the square or circle. Check your answer.

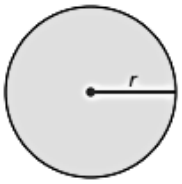
4. Area = 441 cm²



5. Area = 1.69 km²



6. Area = 64π in.²



Find the two square roots of the number.

7. 9 **8.** 64 **9.** 4 **10.** 144

Find the square root(s).

11. $\sqrt{625}$ **12.** $\pm\sqrt{196}$ **13.** $\pm\sqrt{\frac{1}{961}}$ **14.** $-\sqrt{\frac{9}{100}}$

15. $\pm\sqrt{4.84}$ **16.** $\sqrt{7.29}$ **17.** $-\sqrt{361}$ **18.** $-\sqrt{2.25}$

Evaluate the expression.

20. $(\sqrt{9})^2 + 5$ **21.** $28 - (\sqrt{144})^2$ **22.** $3\sqrt{16} - 5$ **23.** $10 - 4\sqrt{\frac{1}{16}}$

24. $\sqrt{6.76} + 5.4$ **25.** $8\sqrt{8.41} + 1.8$ **26.** $2\left(\sqrt{\frac{80}{5}} - 5\right)$ **27.** $4\left(\sqrt{\frac{147}{3}} + 3\right)$

Copy and complete the statement with <, >, or =.

30. $\sqrt{81}$ ____ 8 **31.** 0.5 ____ $\sqrt{0.25}$ **32.** $\frac{3}{2}$ ____ $\sqrt{\frac{25}{4}}$

WINDOW The cost C (in dollars) of making a square window with a side length of n inches is represented by $C = \frac{n^2}{5} + 175$. A window costs $355. What is the length (in feet) of the window?