

CP Algebra 2
HW: Types of Numbers

Name: _____

**I. In the following problems, write the decimal form of the number (if applicable)
Then, classify each number in all possible ways.**

1.) $5\frac{7}{9}$

2.) $-4.5\overline{6}$

3.) $\frac{51}{3}$

4.) $5+\sqrt{11}$

5.) -10

6.) $7.68545454\overline{54}$

7.) 10

8.) $\sqrt{225}$

**II. In the following problems, determine if the number is rational or irrational.
If rational, write the decimal as a simplified fraction (improper, if applicable).
SHOW YOUR WORK!! [Continued on back...]**

9.) 9.08

10.) $1.233223332223333222233333.....$

11.) $0.2323232323\dots$

12.) $5.6735353535\dots$

13.) $6.3\overline{25}$

14.) $0.\overline{471}$

15.) $0.4\overline{71}$

16.) $0.47\overline{1}$

III. Challenge!

17.) What is the 2011th decimal digit in the expansion of $\frac{5}{7}$?