FMPC 10

## REAL NUMBER SYSTEM

Classification of Numbers

1. For every given number, clearly state all the sets the number belongs to. If the given number is not real, write: "Not $\mathbb{R}$ ", using the notation introduced in class.

|  | Number | All sets a given number belongs to |
| :---: | :---: | :---: |
| 1 | $-\sqrt{4}$ |  |
| 2 | $\pi$ |  |
| 3 | 0 |  |
| 4 | $-4$ |  |
| 5 | $\frac{15}{1}$ |  |
| 6 | 54.82 |  |
| 7 | $\sqrt{-12}$ |  |
| 8 | $1 . \overline{47}$ |  |
| 9 | -9 |  |
| 10 | $\frac{\sqrt{6}}{5}$ |  |
| 11 | 1.85 |  |
| 12 | $10^{2}$ |  |
| 13 | $\frac{3}{2}$ |  |
| 14 | $\boldsymbol{x}$ |  |


|  | Number | All sets a given number belongs to |
| :--- | :---: | :--- |
| 15 | $\mathbf{1 4 9}$ |  |
| 16 | $\mathbf{- 0 . 0 1}$ |  |
| 17 | $\sqrt{\mathbf{1 6}}$ |  |
| 18 | $-\mathbf{2 7}$ |  |
| 19 | $\frac{\mathbf{3 2}}{\mathbf{8}}$ |  |
| 20 | $-\sqrt{\mathbf{8 1}}$ |  |

2. Give two examples of a number that is real but not rational: $\qquad$ and $\qquad$ .
3. Without giving examples, describe integers using your own words. (a.k.a. do not google it and do not copy the definition, use your notes and explain what you understand by the term "integers").
4. Define a rational number.
