

Exploring Real Numbers

Score \_\_\_\_\_ Per \_\_\_\_\_

**Are the following numbers rational or irrational?**

- |                  |          |            |                   |          |            |
|------------------|----------|------------|-------------------|----------|------------|
| 1. $\sqrt{2}$    | rational | irrational | 5. 54.6           | rational | irrational |
| 2. -6.81         | rational | irrational | 6. $\frac{21}{8}$ | rational | irrational |
| 3. $0.33\bar{3}$ | rational | irrational | 7. $\sqrt{4}$     | rational | irrational |
| 4. $\pi$         | rational | irrational | 8. 3.14159 ...    | rational | irrational |
9. Explain what would happen to your answers if the numbers in the problems above became negative.

10. Pick two of the above numbers and explain why you said they are *rational* numbers.

- a.
- b.



11. Pick two of the above numbers and explain why you said they are *irrational* numbers.

- a.
- b.

**Classify the following numbers by placing an X in the categories to which the number belongs. (The first two are done for you):**

	Natural	Whole	Integer	Rational	Irrational	Real
			X	X		X
					X	X
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						

22. Order all the numbers from the table on the number line below. (Which number should you write first?)

