

Sept. 28th

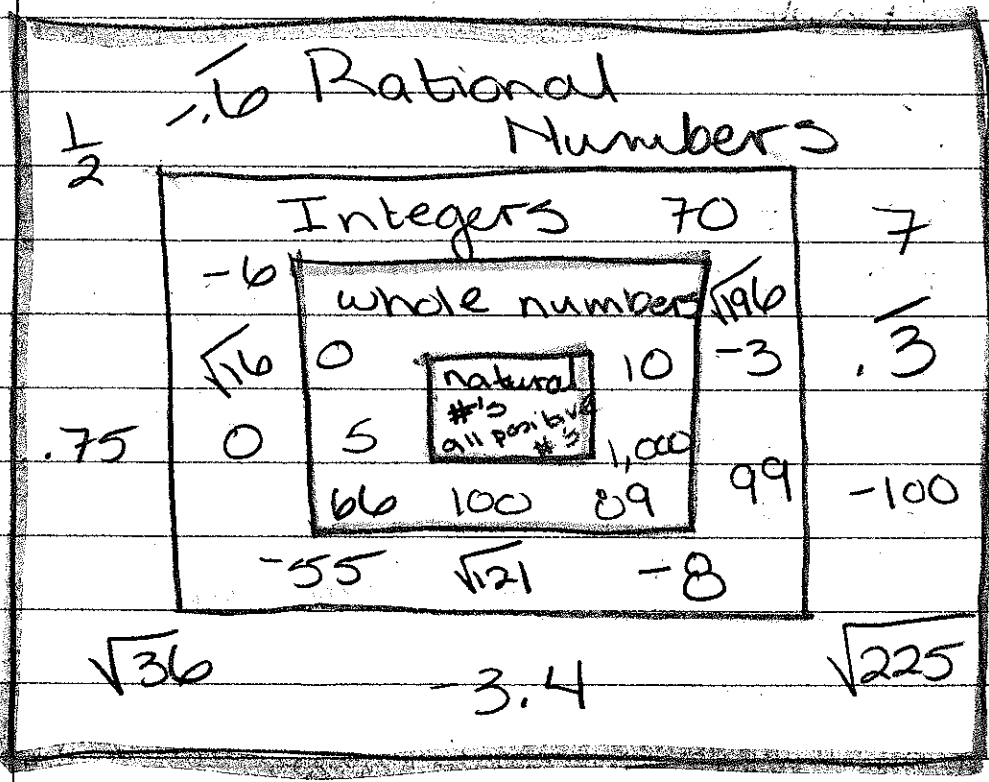
Real Numbers

| Irrational | Rational |
|--------------------------------------|-------------------------------|
| - can't be written as a fraction | - fractions |
| - decimals go on forever | - decimals that terminate |
| - decimals don't repeat (NO pattern) | - decimals that repeat |
| $\sqrt{20}$ | $\sqrt{25} = 5$ $.6$ $-5,000$ |
| π | $\frac{1}{2}$ 10 |
| $\sqrt{3}$ | $-\overline{3}$ |
| $\sqrt{5}$ $\sqrt{10}$ | $\frac{100}{3}$ |
| $\sqrt{13}$ | $\sqrt{4}$ $\sqrt{36}$ |
| $\sqrt{7}$ -4.679... | |
| *imperfect square* | *perfect square* |

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Rational Numbers have several types of numbers within them.



Perfect Squares $\square \times^2$

* think of an exponent of 2 & how to undo that operation

| | | |
|------------|--------------|-------------------------|
| $\sqrt{1}$ | $1^2 = 1$ | $\sqrt{1} = 1 + -1$ |
| 1 | $2^2 = 4$ | $\sqrt{4} = 2 + -2$ |
| $\sqrt{9}$ | $3^2 = 9$ | $\sqrt{9} = 3 + -3$ |
| 3 | $4^2 = 16$ | $\sqrt{16} = 4 + -4$ |
| | $5^2 = 25$ | $\sqrt{25} = 5 + -5$ |
| | $6^2 = 36$ | $\sqrt{36} = 6 + -6$ |
| | $7^2 = 49$ | $\sqrt{49} = 7 + -7$ |
| | $8^2 = 64$ | $\sqrt{64} = 8 + -8$ |
| | $9^2 = 81$ | $\sqrt{81} = 9 + -9$ |
| | $10^2 = 100$ | $\sqrt{100} = 10 + -10$ |
| | $11^2 = 121$ | $\sqrt{121} = 11 + -11$ |
| | $12^2 = 144$ | $\sqrt{144} = 12 + -12$ |
| | $13^2 = 169$ | $\sqrt{169} = 13 + -13$ |
| | $14^2 = 196$ | $\sqrt{196} = 14 + -14$ |
| | $15^2 = 225$ | $\sqrt{225} = 15 + -15$ |