Classification of Numbers
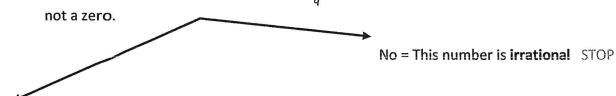
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Ask: Is this number legal in high school = Is the number real?

No = This number is **not real** STOP

Yes = This number is real GO

- Ask: Can I write this number as a fraction $\frac{p}{q}$ where p is an integer, q is an integer and q is not a zero.

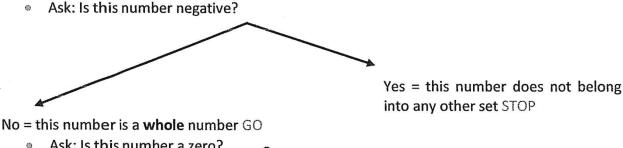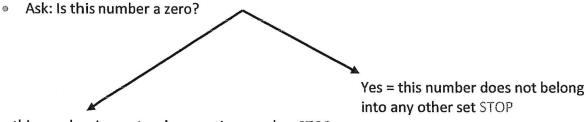No = This number is **irrational** STOP

Yes = This number is **rational** GO

- Ask: Can I write this number <u>without</u> decimals? Or Can I write it as a fraction with number one in the denominator?

No = this number does not belong into any other set (=category) STOP

Yes = this number is an **integer** GO

- Ask: Is this number negative?

Yes = this number does not belong into any other set STOP

No = this number is a **whole** number GO

- Ask: Is this number a zero?

Yes = this number does not belong into any other set STOP

No = this number is a **natural** = counting number STOP