**Chapter – EXPONENTS AND CLASSIFICATION OF NUMBERS**

**I – Reminder on Exponent Laws:**

**Product of Powers with the same base:**

Example:

**Quotient of powers with the same base:**

Example:

**Power of a power:**

Example:

**Power of a product:**

Example:

***Your turn:***   
a) e)

b) f)

c) g)

d) h)

Hwk: 2 worksheets

**II – A few new rules for exponents:**

1. **Rational exponents:**

for any natural number *n*

Examples:

for any natural numbers *n* and *m*.  *n* could be 0

Examples:

1. **Negative Exponents:**

**Rule:**  
 for any number *n*. *x* can’t equal 0.

Examples:

Be careful: A negative exponent, is not the same than a negative number…

Examples:

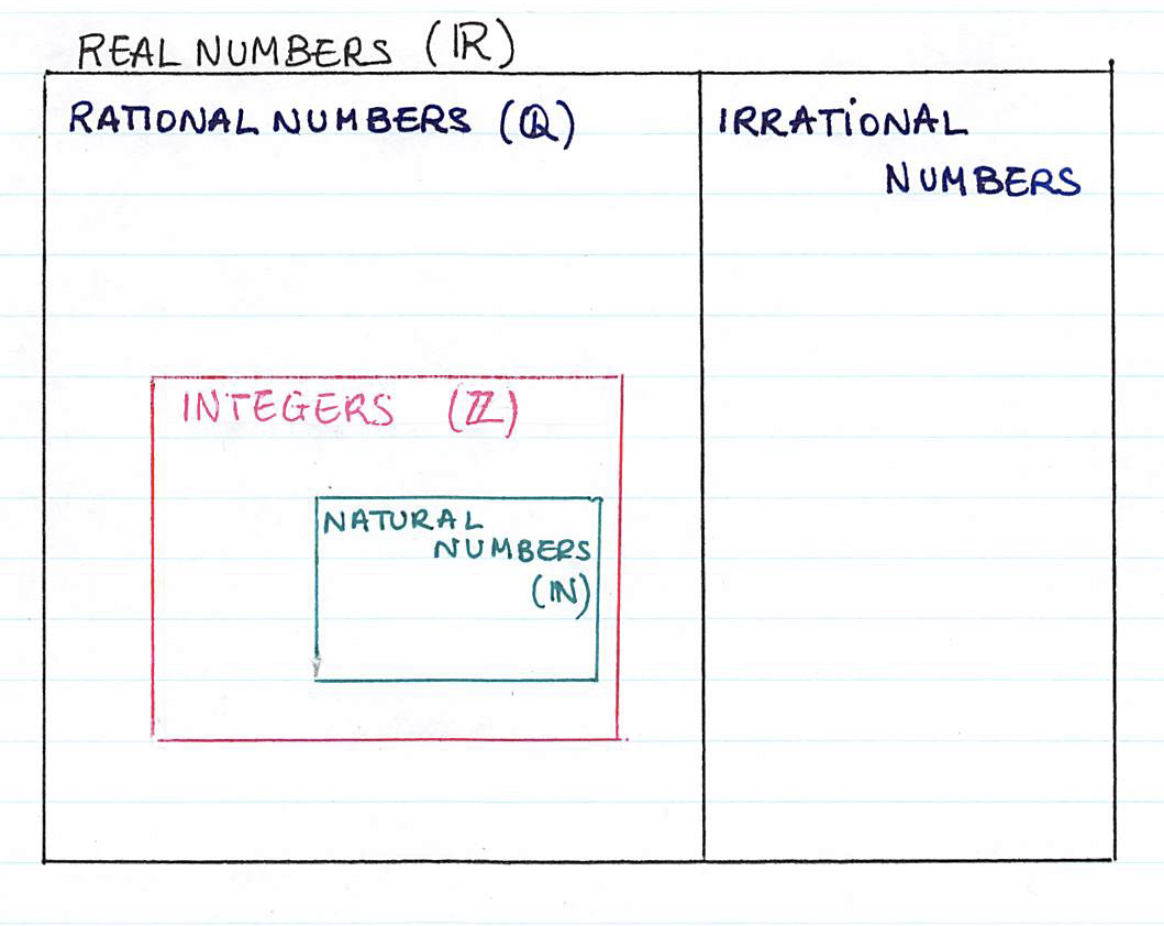
**Generalization of the rule:**

Examples:

**III – Applying exponent Laws :**



**IV – Classification of numbers:**



Position the following numbers in the appropriate number set: