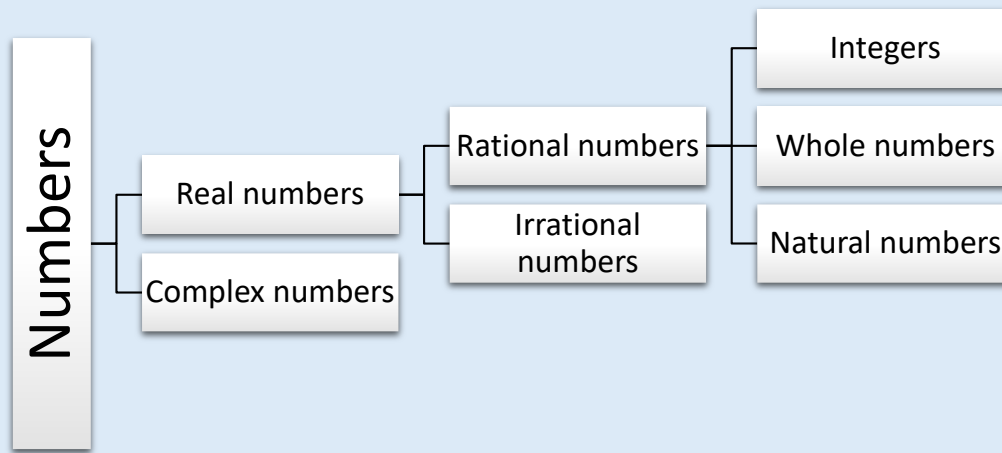


Chapter 1

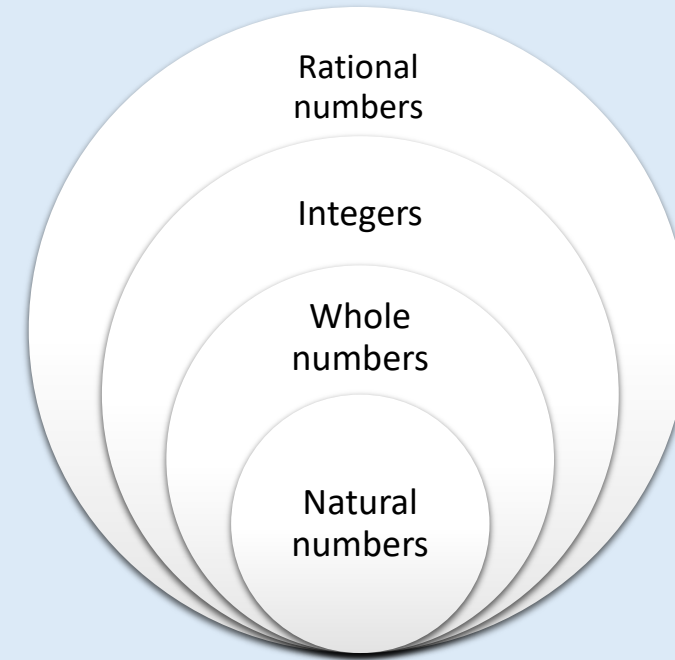
Fundamental Arithmetic



Fig. 1-1: NumberS: (a) hierarchical relationship between the types of numbers, and (b) Venn diagram showing the relationship between the various types of rational numbers.



(a)



(b)



Fig. 1-2: How multiplying by or dividing a number with powers of ten affects the position of a decimal point illustrated.

The diagram illustrates the effect of multiplying and dividing by powers of ten on the decimal point position. It consists of two rows of mathematical expressions, each showing a sequence of operations and the resulting shift of the decimal point.

Row 1: $2.37 \times 10 \Rightarrow 2.37 \xrightarrow{\text{1 place}} 23.7$. A curved arrow above the second 2.37 indicates a shift of the decimal point one place to the right.

Row 2: $145.8 \div 100 \Rightarrow 145.8 \xrightarrow{\text{2 places}} 1.458$. A curved arrow above the second 145.8 indicates a shift of the decimal point two places to the left.



Fig. 1-3: Base and power of a number illustrated.

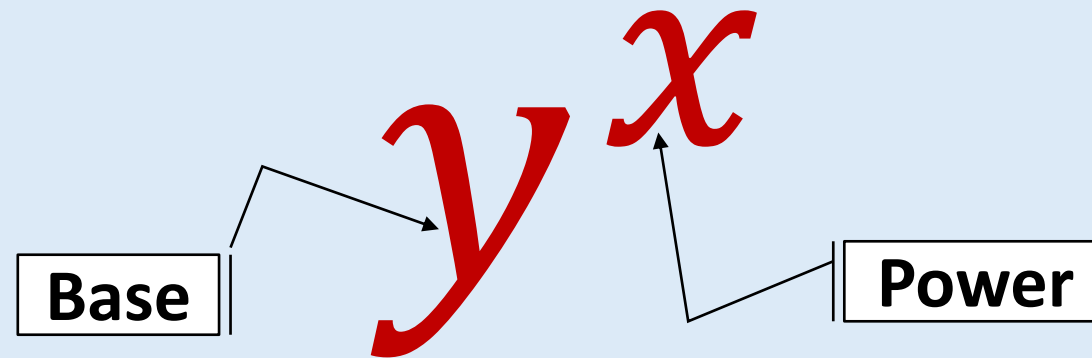
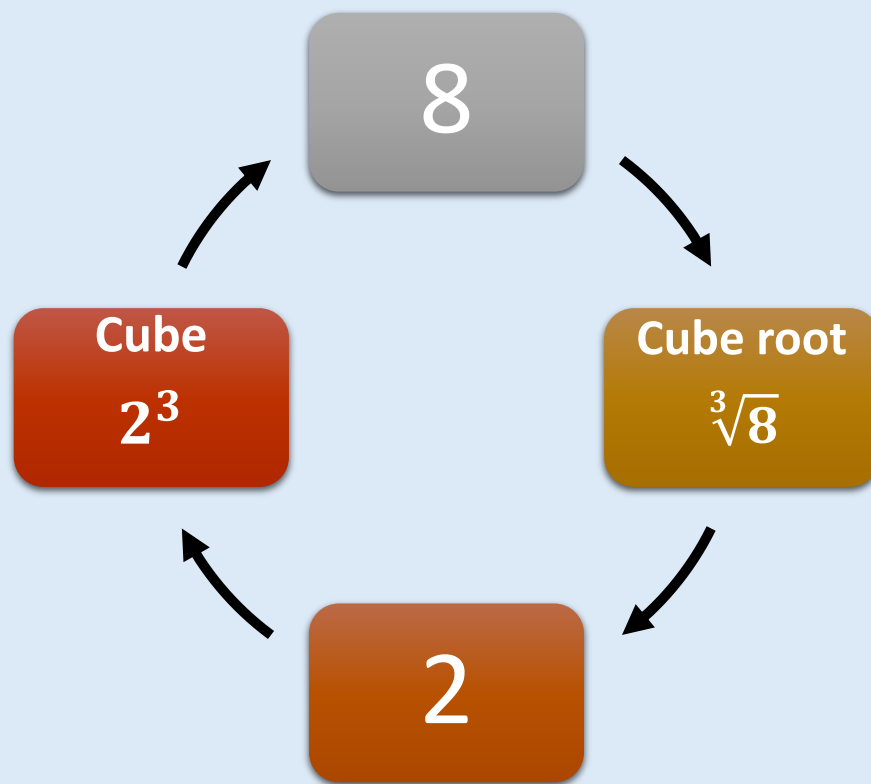


Fig. 1-4: Cube root of a number as an inverse of the cube of the same number illustrated.



Thank You

