



# VIDYA BHAWAN, BALIKA VIDYAPITH

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(Affiliated to CBSE up to +2 Level)

CLASS: IX

SUB.: MATHS (NCERT BASED)

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Classify the following numbers as rational or irrational. give reasons to support your answer.

(i)  $\sqrt{\frac{3}{81}}$

(ii)  $\sqrt{361}$

(iii)  $\sqrt{21}$

(iv)  $\sqrt{1.44}$

(v)  $\frac{2}{3}\sqrt{6}$

(vi) 4.1276

(vii)  $\frac{22}{7}$

(viii) 1.232332333...

(ix) 3.040040004....

(x) 2.356565656...

- Give an example of two irrational numbers whose
- (i) difference is an irrational number.
  - (ii) difference is a rational number.
  - (iii) sum is an irrational number.
  - (iv) sum is a rational number.
  - (v) product is an irrational number.
  - (vi) product is a rational number.
  - (vii) quotient is an irrational number.
  - (viii) quotient is a rational number.

### **ANSWER:**

- (i) 2 irrational numbers with difference an irrational number will be  $3 - \sqrt{5}$  and  $3 + \sqrt{5}$ .
- (ii) 2 irrational numbers with difference is a rational number will be  $5 + \sqrt{3}$  and  $2 + \sqrt{3}$

**Remaining questions do your self**