

# Mathematics

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(Chapter – 1) (Number Systems)(Exemplar Problems)

(Class – IX)

## Exercise 1.3

### Question 3:

Insert a rational number and an irrational number between the following:

(i) 2 and 3

(ii) 0 and 0.1

(iii)  $\frac{1}{3}$  and  $\frac{1}{2}$

(iv)  $-\frac{2}{5}$  and  $\frac{1}{2}$

(v) 0.15 and 0.16

(vi)  $\sqrt{2}$  and  $\sqrt{3}$

(vii) 2.357 and 3.121

(viii) .0001 and .001

(ix) 3.623623 and 0.484848

(x) 6.375289 and 6.375738.

### Answer 3:

(i) Rational number: 2.1 and Irrational number: 2.040040004...

(ii) Rational number: 0.03 and Irrational number: 0.007000700007...

(iii) Rational number:  $\frac{5}{12}$  and Irrational number: 0.414114111...

(iv) Rational number: 0 and Irrational number: 0.151151115...

(v) Rational number: 0.151 and Irrational number: 0.151551555...

(vi) Rational number: 1.5 Irrational number: 1.585585558...

(vii) Rational number: 3 and Irrational number: 3.101101110...

(viii) Rational number: 0.00011 and Irrational number: 0.0001131331333...

(ix) Rational number: 1 and Irrational number: 1.909009000...

(x) Rational number: 6.3753 and Irrational number: 6.375414114111...

