

Class: IX
Subject: Math's
Topic: Number system
No. of Questions: 25

Q.1 Find 5 rational numbers between $\frac{3}{5}$ and $\frac{4}{5}$.

Q.2 Show that 3.142678 is a rational number.

Q.3 Show that $0.3333\dots = 0.\bar{3}$ can be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

Q.4 Locate $\sqrt{2}$ on number line.

Q.5 Show that $1.272727\dots = 1.\bar{27}$ can be expressed in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

Q.6 Show that $0.2353535\dots = 0.2\bar{35}$ can be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

Q.7 Find an irrational number between $\frac{1}{7}$ and $\frac{2}{7}$

Q.8 Check whether $\frac{7}{\sqrt{5}}$ is an irrational number or not.

Q.9 Add $2\sqrt{2} + 5\sqrt{3}$ and $\sqrt{2} - 3\sqrt{3}$

Q.10 Multiply $6\sqrt{5}$ by $2\sqrt{5}$

Q.11 Divide $8\sqrt{15}$ by $2\sqrt{3}$

Q.12 Simplify $(\sqrt{3} + \sqrt{7})^2$

Q.13 Find the value of $(\sqrt{11} - \sqrt{7})(\sqrt{11} + \sqrt{7})$

Q.14 Rationalize the denominator of $\frac{1}{2+\sqrt{3}}$

Q.15 Rationalize $\frac{5}{\sqrt{3}-\sqrt{5}}$

Q.16 Rationalize $\frac{1}{7+3\sqrt{2}}$

Q.17 Simplify $13^{1/5}$, $17^{1/5}$

Q.18 Is $(\pi-2)$ an irrational number?

Q.19 State whether true or false:

- a) Every natural number is a whole number.
- b) Every integer is a whole number.
- c) Every irrational number is a whole number.

Q.20 Find the decimal expansion of $10/3$

Q.21 Express $0.9999\dots$ in the form of p/q and $q \neq 0$

Q.22 Classify $2-\sqrt{5}$ as rational or irrational

Q.23 Find the value of $(125)^{-1/3}$

Q.24 Solve $2^{2/3}$, $2^{1/3}$

Q.25 Rationalize $\frac{1}{\sqrt{5}+\sqrt{2}}$