

# Learny Academy

## Worksheet: Number Systems

1. Find six rational numbers between  $\frac{3}{5}$  and  $\frac{4}{5}$ .
2. Express  $0.666\dots$  in the form  $\frac{p}{q}$ .
3. Write the decimal expansion of  $\frac{1}{6}$  up to 10 places of decimals. Is it terminating or non-terminating?
4. Find the value of:  $(\frac{2}{5} \div \frac{3}{10}) + \frac{4}{15}$ .
5. Express  $0.232323\dots$  in the form  $\frac{p}{q}$ .
6. If  $x = \sqrt{2} + \sqrt{3}$ , find the value of  $x^2 - 10$ .
7. Rationalize the denominator:  $1 / (\sqrt{5} + \sqrt{2})$ .