REAL NUMBERS

1) Express $\frac{213}{999}$ as decimals.

2) Simplify : $(36^{-1/5})^{5/2}$

3) Classify the following numbers as rational or irrational

   a) 0.347234556…… b) $\sqrt{441}$

4) Add $2\sqrt{3} + 5\sqrt{2}$ and $\sqrt{2} - 3\sqrt{3}$

5) Express $0.6\overline{12}$ in the form $\frac{p}{q}$

6) Insert four rational numbers between $\frac{-2}{3}$ and $\frac{3}{4}$

7) If p, q are rational numbers, find the values of p and q.

   $p - \sqrt{15}\, q = \frac{4\sqrt{3} - \sqrt{5}}{7\sqrt{3} - 2\sqrt{5}}$

8) Represent $\sqrt{2}$ on the number line.

9) Insert two irrational numbers between $\sqrt{2}$ and $\sqrt{3}$

10) Simplify $\frac{49^{3/2} \times 32^{3/5}}{16^{5/4} \times 27^{4/3}}$

11) Evaluate by taking $\sqrt{2}$ =1.414, $\sqrt{3}$ =1.732 and $\sqrt{5}$ = 2.236 , upto three places of decimal. $\frac{\sqrt{3} - \sqrt{15}}{\sqrt{8}}$

12) Express $0.9 + 0.\overline{5} + 0.45$ in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$

13) Visualise 5.126 on the number line using successive magnification