

Date 10-05-2016

Maths-Test 3

Time- 40 min

Class 9th

M .Marks- 20

ICSE



Two Marks Each

1. Find five rational numbers between $\frac{3}{5}$ and $\frac{4}{5}$.
2. Rationalize the denominator $1/(2\sqrt{3} + \sqrt{7})$
3. Simplify : $(3\sqrt{5} - 2\sqrt{3})(3\sqrt{5} + 2\sqrt{3})$
4. Simplify by combining similar terms : $4\sqrt{3} - 3\sqrt{12} + 2\sqrt{75}$

Three Marks Each

5. If a and b are rational numbers, find the values of a and b in each of the following equalities :

$$\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$$

6. If $x = 3 + \sqrt{8}$, find the value of $x^2 + \frac{1}{x^2}$.

Kiran invests Rs 8000 for 2 years at a certain rate of interest, compounded annually. At the end of the year, this sum amounts to Rs 8960. Calculate:

- (i) The rate of interest per annum
- (ii) The amount due at the end of second year
- (iii) The compound interest earned in 2 years.

7. If $a + b + c = 10$ and $a^2 + b^2 = 58$, find the value of $a^3 + b^3$

Ans 6- (i) 12% (ii) 10035.20 (iii) 2035.2

7- 370