

ANSWER KEY FOR
ARYABHATTA INTER-SCHOOL MATHS COMPETITION – 2000

Class - VIII

PART - I

1. (i) 1
(ii) 0
(iii) 441
(iv) 5
(v) 48, 66
(vi) 2
(vii) 6
(viii) 16
(ix) 8
(x) ₹50

2. (i) F
(ii) F
(iii) F
(iv) F
(v) T
(vi) F
(vii) T
(viii) F
(ix) T
(x) F

3. (i) (b)
(ii) (c)
(iii) (c)
(iv) (a)

- (v) (b)
- (vi) (b)
- (vii) (c)
- (viii) (b)
- (ix) (d)
- (x) (c)

PART - II

4. (a) $\frac{15}{4}$
(b) 60°
(c) Ram – ₹7290/-, Shyam – ₹6250/-
5. (a) $46\frac{2}{3}\%$
(b) $(x - \frac{1}{x} - 1)(x - \frac{1}{x} + 1)$
(c) $\angle ADC = 65^\circ, \angle DCB = 85^\circ, \angle CBA = 115^\circ$ & $\angle BAD = 95^\circ$
6. (a) 20 days
(c) $\frac{34}{225}$
7. (a) $2m^{**}$
(b) $x = 36^\circ$ & $y = 108^\circ$
(c) $(a^{2x} - b^y)(a^{2x} + b^y)$
8. (a) 150m
(b) ₹450/-
(c) ₹750/-
9. (a) 7.5 liters
10. (a) 12π cm , 12π cm²
(b) 180°

**** The Question should have all units in meters.**