



INSTITUTE OF MATHEMATICS EDUCATION
JUNIOR MATHS OLYMPIAD – 2023 (Primary Level)

Std. : V and VI

Question Paper Solution

Date : 05.02.2023

Q.1 14752

Q.2 $\angle DBE = 60^\circ$, $\angle BED = 50^\circ$, $\angle BDE = 70^\circ$

Q.3 (i) $x = 497$ (ii) $y = 46403$

Q.4 36

Q.5 21

Q.6 ORANGE = 314968
A = 4, G = 6, E = 8, O = 3, R = 1, V = 7, U = 5

Q.7 8125

Q.8 $\sqrt{2147.6}$

Q.9 (24, 60, 108), (24, 60, 216), (24, 108, 180), (12, 108, 120), (12, 24, 540), (12, 60, 216), (12, 60, 540), and more such groups.

Q.10 3

Q.11 Possible bases are 6, 7, 8, 9, 10, 11, 12

(i) $x = 6$, $A + C - B = (3)_6$

(ii) $x = 7$, $A + C - B = (4)_7$

(iii) $x = 8$, $A + C - B = (5)_8$

(iv) $x = 9$, $A + C - B = (6)_9$

(v) $x = 10$, $A + C - B = (7)_{10}$

(vi) $x = 11$, $A + C - B = (8)_{11}$

(vii) $x = 12$, $A + C - B = (9)_{12}$

Q.12 27

Q.13 $a = 1, b = 2, c = 3, d = 4$