4.1

1. **x + y = 6 Ges x − y = 4 n‡j, 4xy Gi gvb KZ?**

K 5 L 13 M 20 N 52 ⬤

1. **x2 – 2 Gi mv‡\_ wb‡Pi †KvbwU †hvM Ki‡j †hvMdj c~Y©eM© n‡e?**

K y2 L 3 M 2x N ⬤

1. **a + = 5 n‡j, = KZ?**

K L M N 2 ⬤

1. **hw` x + y = 3 Ges x – y = 1 nq, Z‡e x2 + y2 = ?**

K 5 L 3 M 2 N 1 ⬤

1. **hw` x + = 2 nq, Z‡e x4 − ?**

K 0 L 2 M 14 N 16 ⬤

1. **– 2x – y Gi eM©Ñ**

K 4x2 + 2xy + y2 L 4x2 – 2xy – y2

M – 4x2 – 4xy −y2 N 4x2 + 4xy + y2 ⬤

1. **= 12 n‡j, a2 + Gi gvb KZ?**

K 2 L 3 M N 1 ⬤



K 2 L 3 M 5 N 7 ⬤

1. **a + b = 12 Ges ab = 27 n‡j, (a −b) Gi gvb KZ?**

K 4 L 6 M 8 N 12 ⬤

1. **(x + 4) (x − 4) = KZ?**

K x2 + 16 L x2 − 16 M x2 + 64 N x2 + 81 ⬤

1. **(− a − b) Gi e‡M©i gvb wb‡Pi †KvbwU?**

K a2 + 2ab + b2 L a2 − 2ab + b2

M − a2 + 2ab − b2 N a2 − 2ab − b2 ⬤

1. **x = 3 − n‡j x2 + Gi gvb KZ?**

K 7 L 9 M 11 N 13 ⬤

1. **(x − y)2 =0, xy = 4 n‡j, (x + y)2 = KZ?**

K 0 L 2 M 6 N 16 ⬤

1. **{(a + b)2 − (a – b)2} = KZ?**

K 4ab L 2ab M ab N ab ⬤

1. **x = –3 n‡j, (x + 3) (x2 – 3x + 9) Gi gvb wb‡Pi †KvbwU?**

K 3 L 9 M 16 N 0 ⬤

1. **a2 – b2 = 5/2, a + b = n‡j, a – b = KZ?**

K 3 L 4 M 5 N 6 ⬤

1. **n‡j, Gi gvb KZ?**

K 29 L 30 M 32 N 36 ⬤

1. **x = 7 n‡j, x2 + 6x2 + 12x + 1 Gi gvb KZ?**

K 242 L 422 M 622 N 722 ⬤

1. **4ab + a2 Gi mv‡\_ KZ †hvM Ki‡j †hvMdj c~Y©eM© n‡e?**

K b2 L −4b2 M −4ab N 4ab ⬤

1. **9a2 + 12ab + 2b2 Gi mv‡\_ KZ †hvM Ki‡j c~Y©eM© msL¨v n‡e?**

K 2a2 L a2 + b2 M 2b2 N 4ab ⬤

1. **a2 + b2 Gi Abywm×všÍ wb‡Pi †KvbwU mwVK?**

K (a + b)2 − 4ab L (a − b)2 + 4ab

M − N −− ⬤

1. **− x − 2y Gi eM© †KvbwU?**

K − x2 + 4xy + 4y2 L x2 + 4xy + 4y2

M x2 − 4xy + 4y2 N − x2 + 4xy − 4y2 ⬤

1. **x − = 4 n‡j x2 + Gi gvb KZ?**

K 0 L 18 M 20 N 22 ⬤

1. **a Ges a Gi ¸YvZ¥K wecixZ ivwki †hvMdj n‡j wb‡Pi †KvbwU mwVK?**

K a + (−a) = L a − =

M a2 + a = N a2 + 1 = a ⬤

1. **a + b = I a − b = n‡j a2 + b2 Gi gvb KZ?** [

K 12 L 6 M N ⬤

1. **(x − y)2 = 0 Ges xy = 4 n‡j, x + y Gi gvb KZ?**

K 3 L 4 M 7 N 16 ⬤

1. **a + b = 10 Ges a − b = 6 n‡j a2 − b2 Gi gvb KZ?**

K 60 L 68 M 77 N 99 ⬤

1. **x − = 4 n‡j, Gi gvb wb‡Pi †KvbwU?**

K 16 L 20 M 22 N 24 ⬤

1. **2x − 5 Gi eM© wb‡Pi †KvbwU?**

K 4x2 + 20x + 25 L 4x2 − 20x + 25

M 4x2 + 20x + 24 N 4x2 − 25 ⬤

1. **a + b = 12 Ges ab = 27 n‡j, a − b Gi gvb KZ?**

K 6 L 12 M 4 N 8 ⬤

1. **25 Gi eM© †KvbwU?**

K 525 L 625 M 655 N 675 ⬤

1. **a + b = Ges a − b = n‡j, a2 − b2 Gi gvb †KvbwU?**

K L M 6 N 5 ⬤

1. **(a − b + c) Gi eM© wb‡Pi †KvbwU?**

K a2 + b2 + c2 + 2ab + 2bc + 2ca

L a2 − b2 + c2 + 2ab − 2bc − 2ca

M a2 − b2 + c2 − 2ab − 2bc + 2ca

N a2 + b2 + c2 − 2ab − 2bc + 2ca ⬤

1. **a = n‡j (2a + 1) (4a2 − 2a + 1) Gi gvb wb‡Pi †KvbwU?**

K 0 L 1 M 2 N 3 ⬤

1. **a + b = 3, a − b = 5 n‡j, a2 − b2 = KZ?**

K 4 L 1 M 8 N 15 ⬤

1. **hw` a + b = 6 Ges ab = 8 nq, Z‡e a2 + b2 = ?**

K 8 L 16 M 20 N 36 ⬤

1. **x = n‡j, 8x3 − 12x2 + 6x − 1 Gi gvb KZ?**

K 0 L 1 M 2 N 4 ⬤

1. **− Gi eM© wb‡Pi †KvbwU?**

K x2 − 2x2 + L x2 + 2 +

M x2 + 2 + N x2 − 2 + ⬤

1. **x − = 5 n‡j, Gi gvb KZ?**

K 25 L 29 M 27 N 23 ⬤

1. **x + y = 4 I x − y = 2 n‡j, x I y Gi gvb KZ?**

K (3, 1) L (1, 3) M (− 3, 1) N (3, − 1) ⬤

1. **x + = 2 n‡j, − = KZ?**

K 4 L 2 M 1 N 0 ⬤

1. **a + = 2 n‡j, a2 + Gi gvb wb‡Pi †KvbwU?**

K 2 L 4 M 6 N 8 ⬤

1. **x + y = 4 Ges xy = 1 n‡j x − y = ?**

K 3 L 2 M N 0 ⬤

1. **x − = 5 n‡j, Gi gvb KZ?**

K 27 L 29 M 21 N 23 ⬤

1. **wb‡Pi †KvbwU ab Gi gvb?**

K (a + b)2(a − b)2 L − −

M (a + b)2 − 2ab N + − ⬤

1. **x − = 3 n‡j, x2 − Gi gvb KZ?**

[gwbcyi D”P we`¨vjq I K‡jR, wgicyi, XvKv]

K 7 L 11 M 3 N 20 ⬤

1. **a2 + b2 mgvb wb‡Pi †KvbwU?**

K (a + b)2 − 2ab L (a + b)2 − 4ab

M (a2 + b2)2 + 2ab N (a + b)(a − b) ⬤

1. **a − = 2 n‡j, a2 + = KZ?**

K 6 L 4 M 2 N 1 ⬤

1. **p = b − 2c, q = a + 3c n‡j, (p + q)2Gi gvb KZ?**

K a2 + 2ab + b2 L b2 − 4bc + c2

M a2 + 6c + 9c2 N a2 + b2 + c2 + 2ab + 2bc + 2ca ⬤

1. **a + b = 11 Ges a − b = 3 n‡j, ab = KZ?**

K 130 L 260 M 28 N 56 ⬤

1. **a2 − b2 = 2, a − b = 1 n‡j, a + b Gi gvb wb‡Pi †KvbwU?**

K 1 L 2 M 3 N 4 ⬤

1. **P + = 4 n‡j, P2 + Gi gvb KZ?**

K 18 L 16 M 14 N 12 ⬤

1. **m + = 2 n‡j m4 + = KZ?**

K 1 L 2 M 3 N 4 ⬤

1. **H− R = 12 Ges HR = 27 n‡j,**

i. (H + R)2 = 36 ii. H2 + R2 = 90

iii. 2H2 + 2R2 = 170

wb‡Pi †KvbwU mwVK?

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

1. **hw` x2 + 2x + 1 = 0 nq, Z‡eÑ**

i. = 2 ii. = – 2

iii. = 0

**wb‡Pi †KvbwU mwVK?**

K i L ii M iii N i, ii I iii ⬤

1. **a + = 2 n‡j-**

i. = 2 ii. a4 − 2a2 + 1 = 0 iii. a2 + = 2

**wb‡Pi †KvbwU mwVK?**

K i I ii L ii I iii M i I iii N i, ii I iii ⬤

1. **a + = 2****n‡j**

i. a2 + = 2 ii. a2 + = a4 + iii. a2 + = a3 +

**wb‡Pi †KvbwU mwVK?**

K i I ii L ii I iii M i I iii N i, ii I iii ⬤

1. **x = 3 + 2****n‡j−**

i. x + = 6 ii. x2 + = 34 iii. x3 + = 150

**wb‡Pi †KvbwU mwVK?**

K i I ii L ii I iii M i I iii N i, ii I iii ⬤

1. **x + = 5 n‡j-**

i. x2 + = 23 ii. − = 21 iii. 2 = 10

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

1. **9x2 + 25y2 Gi mv‡\_ KZ †hvM Ki‡j †hvMdj c~Y©eM© n‡e?**

i. − 30xy ii. 30xy iii. 450xy

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

1. **a − b = 7 Ges ab = 5 n‡j Ñ**

i. (a + b)2 = 69 ii. a2 + b2 = 59 iii. a2 − b2 = 35

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

**wb‡Pi Z\_¨ n‡Z 33 I 34 bs cÖ‡kœi DËi `vI :**

a + b = 6, ab = 8, hLb a > b.

1. **a – b = KZ?**

K 2 L ± 2 M 2 N ± 2 ⬤

1. **a2 – b2 Gi gvb KZ?**

K ± 2 L ± 2 M ± 12 N 12 ⬤

**wb‡Pi DÏxc‡Ki Av‡jv‡K 16 - 18 bs cÖ‡kœi DËi `vI :**

−

1. **Gi gvb wb‡Pi †KvbwU?**

K 36 L 38 M 40 N 42 ⬤

1. **= KZ?**

K 36 L 38 M 40 N 44 ⬤

1. **Gi gvb KZ?**

K 1442 L 1444 M 1446 N 1450 ⬤

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 42 Ñ 44 bs cÖ‡kœi DËi `vI :**

a − = 4

1. **a2 + = KZ?**

K 13 L 18 M 20 N 22 ⬤

1. **a + = KZ?**

K 2 L 3 M 4 N 6 ⬤

1. **a2 − = KZ?**

K 16 L 12 M 8 N 4 ⬤

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 45 - 47 bs cÖ‡kœi DËi `vI :**

a + b = 5, a − b = 3 n‡j-

1. **a2 + b2** **Gi gvb KZ?**

K 34 L 15 M 16 N 17 ⬤

1. **ab** **Gi gvb KZ?**

K 4 L 8 M 16 N 32 ⬤

1. **a2 − b2** **Gi gvb KZ?**

K 25 L 9 M 15 N 8 ⬤

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 48 Ñ 50 bs cÖ‡kœi DËi `vI :**

x + y + z GKwU exRMwYZxq ivwk|

1. **ivwkwUi eM© KZ?**

K x2+y2+z2 L x2+ y2+ z2+ 2xy+ 2yz+2zx

M x2+y2+z2−2xy−2yz − 2zx N x2+y2 +z2−x−y−z⬤

1. **ivwkwUi mv‡\_ (x + y − z) Gi ¸Ydj KZ?**

K x2 + 2xy + y2 L x2+ 2xy + y2− z2

M x2+y2−z2 N x2 − y2 − z2 ⬤

1. **ivwkwUi gvb 5 Ges xy + yz + zx = 10 n‡j,**

**x2 + y2 + z2 = KZ?**

K 25 L 20 M 10 N 5 ⬤



1. **(3x − 7)(7 + 3x) †K `yBwU e‡M©i we‡qvMdjiƒ‡c cÖKvk Ki‡j wb‡Pi †KvbwU mwVK?** [Xv. †ev. Õ18]

K 3x2 − 49 L (3x)2 − (49)2

M 9x2 − 7 N 9x2 − 49 ⬤

1. **x2 – 8x – 3 Gi mv‡\_ KZ †hvM Ki‡j †hvMdj c~Y©eM© n‡e?** [iv. †ev. Õ18]

K 19 L 13 M 7 N 3 ⬤

1. **x2 + = 2 n‡j x – Gi gvb KZ?** [w`. †ev. Õ18]

K –2 L 0 M 2 N 4 ⬤

**e¨vL¨v :** x2 + = 2 ev, + 2.x. = 2

ev, = 2 – 2 ∴ x – = 0

1. **a + b = 6 Ges a – b = 4 n‡j, 4ab-Gi gvb KZ?**

[e. †ev. Õ18]

K 7 L 10 M 26 N 52

**mwVK DËi :** 20

**e¨vL¨v :** 4ab = (a + b)2 – (a – b)2 = 62 – 42 = 36 – 16 = 20

1. **p + = 2 n‡j, = KZ?** [e. †ev. Õ18]

K 0 L 1 M 2 N 4 ⬤

**e¨vL¨v :**  = – 4. P. = 22 – 4 = 4 – 4 = 0

1. **x2 + = 1 n‡j x+ Gi gvb KZ?** [Xv. †ev. Õ17]

K L M 2 N 3 ⬤

**e¨vL¨v :**  x2 + = 1

ev, – 2. x . = 1 ev, – 2 = 1

ev, = 2 + 1 ∴ x + =

1. **x = p + , y = p – n‡j, (x + y)2 = KZ?**  [h. †ev. Õ17]

K 2p L 4p M 2p2 N 4p2 ⬤

**e¨vL¨v :**  x + y = + = p + + p – = 2p

∴ (x + y)2 = (2p)2 = 4p2

1. **a4 + = 119 n‡j a2 + = KZ?** [h. †ev. Õ17]

K 11 L M 13 N 19 ⬤

**e¨vL¨v :** a4 + = 119

ev, (a2)2 + = 119 ev, – 2.a2. = 119

ev, = 121 ∴ a2 + = 11

1. **a + = 4 n‡j Gi gvb KZ?**  [iv. †ev. Õ17]

K 8 L 12 M 16 N 20 ⬤

**e¨vL¨v :** − = − 4a. = (4)2 − 4 = 16 − 4 = 12

1. **x + = 2 n‡j, x – Gi gvb wb‡Pi †KvbwU?**  [Kz. †ev. Õ17]

K 0 L 1 M 2 N 3 ⬤

**e¨vL¨v :** − = − 4x. = 22 − 4 = 4 − 4 = 0

∴ x − = 0

1. **a + b = 7 Ges a – b = 3 n‡j, a2 + b2 Gi gvb wb‡Pi †KvbwU?**  [Kz. †ev. Õ17]

K 20 L 29 M 40 N 58 ⬤

**e¨vL¨v :** a2 + b2 = − = = = = 29

1. **– a – b Gi eM© †KvbwU?**  [P. †ev. Õ17]

K – a2 – 2ab – b2 L a2 – 2ab + b2

M a2 + 2ab + b2 N a2 – 2ab – b2 ⬤

**e¨vL¨v :** (−a − b) Gi eM© = (−a − b)2

= {−(a + b)}2  = (a + b)2 = a2 + 2ab + b2

1. **(y + 4)(y + 2) †K `yBwU ivwki e‡M©i AšÍiiƒ‡c cÖKvk Ki‡j wb‡Pi †KvbwU mwVK?** [Kz. †ev. Õ17]

K (y + 3)2 – 1 L (y + 4)2 – 1

M (y + 2)2 – 1 N (x – 3)2 – 1 ⬤

**e¨vL¨v :** (y + 4) (y + 2)

= − −−

= − = − 1 = (y + 3)2 − 1

1. **x – = 6 n‡j Gi gvb KZ?**  [wm. †ev. Õ17]

K 32 L 38 M 40 N 44 ⬤

**e¨vL¨v :**  = − + 4x . = (6)2 + 4 = 36 + 4 = 40

1. **x + 2y eM© †KvbwU?** [Xv. †ev. Õ16]

K x2 + 2xy + y2 L x2 + 4xy + 4y2

M x2 + 2xy + 4y2 N x2 + xy + y2 ⬤

**e¨vL¨v :** (x + 2y)2

= x2 + 2.x.2y + (2y)2 = x2 + 4xy + 4y2

1. **hw` a + b = 5, a – b = 4 nq, Zvn‡j a2 – b2 = KZ?**  [Xv. †ev. Õ16]

K 9 L 10 M 15 N 20 ⬤

**e¨vL¨v :** a2 − b2 = (a + b) (a − b) = 5 × 4 = 20

1. **2x + = 4 n‡j, x2 + = KZ?** [e. †ev. Õ16]

K 0 L 2 M 6 N 8 ⬤

**e¨vL¨v :** 2x + = 4 ev, 2 = 4 ev, x + = 2

**∴** x2 + = − 2.x . = 22 − 2 = 2

1. **a + = 3 n‡j, a2 + Gi gvb KZ?** [iv. †ev. Õ16]

K 5 L 7 M 11 N 13 ⬤

**e¨vL¨v :** a2 + = − 2.a. = 32 − 2 = 9 − 2 = 7

1. **(x + 6) (x + 4) Gi `yBwU ivwki e‡M©i AšÍiiƒc †KvbwU?** [w`. †ev. Õ16]

K x2 – 62  L x2 – 42

M (x)2 – (10)2 N (x + 5)2 – (1)2 ⬤

1. **m – = 6 n‡j, m2 + Gi gvb KZ?** [Kz. †ev. Õ16]

K 32 L 34 M 38 N 40 ⬤

**e¨vL¨v :** m2 + = − + 2.m.

= 62 + 2 = 36 + 2 = 38

1. **a – b = 5 Ges ab = 3 n‡j a2 + b2 Gi gvb KZ?**

[w`. †ev. Õ16]

K 13 L 19 M 31 N 37 ⬤

1. **(x – 3y) Gi eM© wb‡Pi †KvbwU?** [w`. †ev. Õ16]

K x2 + 6xy + 9y2 L x2 – 6xy + 9y2

M x2 + 6xy – 9y2 N x2 – 6xy – 9y2 ⬤

1. **a2 – 1 = 5a n‡j a2 + Gi gvb wb‡Pi †KvbwU?** [P. †ev. Õ16]

K 21 L 23 M 25 N 27 ⬤

1. **a + b – c Gi exRMwYZxq ivwki eM© wb‡Pi †KvbwU?** [P. †ev. Õ16]

K a2 + b2 + c2 L a2 + b2 – c2 + 2ab – 2bc – 2ca

M a2 + b2 + c2 – 2ab – 2bc – 2ca N a2 + b2 + c2 + 2ab – 2bc – 2ca ⬤

1. **x + = 2 n‡j x2 + Gi gvb wb‡Pi †KvbwU?** [wm. †ev. Õ16]

K 2 L 4 M 6 N 8 ⬤

1. **52 Gi eM© wb‡Pi †KvbwU?** [Xv. †ev. Õ15]

K 2704 L 2504 M 2496 N 2284 ⬤

**e¨vL¨v :** 52 = 50 + 2 Gi eM©

(50 + 2)2 = 502 +2.50.2 + 22 = 2500 + 200 + 4 = 2704

1. **(x + 7) I (x − 8) Gi ¸Ydj wb‡Pi †KvbwU?** [h. †ev. Õ15]

K x2 − x − 56 L x2 − 15x + 56

M x2 + 15x − 56 N x2 − x + 56 ⬤

1. **x = n‡j, wb‡Pi †KvbwU mwVK?** [h. †ev. Õ15]

K 4x + 3 = 0 L 4x + 3 = 4

M 4x − 6 = 0 N 4x − 3 = 0 ⬤

1. **a + b = 5 Ges ab = 10 n‡j, a2 + b2 Gi gvb wb‡Pi †KvbwU?** [e. †ev. Õ15]

K 65 L 45 M 20 N 5 ⬤

1. **a + b = 13 Ges a − b = 3 n‡j, ab Gi gvb KZ?**  [w`. †ev. Õ15]

K 178 L 160 M 40 N 39 ⬤

1. **x + y = 2 Ges x2 + y2 = 4 n‡j, xy Gi gvb KZ?** [w`. †ev. Õ15]

K 0 L 2 M 4 N 8 ⬤

1. **a − = 4 n‡j a2 + Gi gvb KZ?** [wm. †ev. Õ15]

K 12 L 14 M 16 N 18 ⬤

1. **= KZ?** [wm. †ev. Õ15]

K 25a2 + 20a + L 5a2 +

M 25a2 + + 5 N 10a2 + 10ab + ⬤

1. **A I B `yBwU ivwk n‡j, AB mgvb wb‡Pi †KvbwU?** [Xv. †ev. Õ14]

K − − L + −

M (A + B)2 − 4AB N (A − B)2 + 4AB ⬤

1. **m − n = 4 Ges mn = 3 n‡j, (m + n)2 Gi gvb KZ?**

[w`. †ev. Õ14]

K 4 L 16 M 28 N 82 ⬤

**e¨vL¨v :** (m + n)2 = (m – n)2 + 4mn

= (4)2 + 4 × 3 = 16 + 12 = 28



1. **p + q = 7 Ges pq = 2 n‡jÑ** [Xv. †ev. Õ18]

i. p2 + q2 = 7 ii. p2 − q2 = 45

iii. p3 − q3 = 45

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

1. **x2 + y2 = 4 Ges x + y = 2 n‡j ⎯**  [P. †ev. Õ17]

i. xy = 2 ii. xy = 0

iii. (x – y)2 = 4

**wb‡Pi †KvbwU mwVK?**

K i I ii L ii I iii M i I iii N i, ii I iii ⬤

**e¨vL¨v :** x2 + y2 = 4 Ges x + y = 2

GLb (x + y)2 = 4 ev x2 + y2 + 2xy = 4 ev, 4 + 2xy = 4

ev, xy = − = 0

(i) xy ≠ 2 (ii) xy = 0

(iii) (x − y)2 = x2 + y2 − 2xy = 4 − 0 = 4

1. **x + y = 5 Ges x – y = 3 n‡j-** [w`. †ev. Õ16]

i. x2 – y2 = 15 ii. x2 + y2 = 17

iii. xy = 34

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

1. **a + b = 13 Ges a − b = 3 n‡j−** [iv. †ev. Õ14]

i. a2 − b2 = 39 ii. 2(a2 + b2) = 178 iii. 4ab = 160

**wb‡Pi †KvbwU mwVK?**

K i I ii L i I iii M ii I iii N i, ii I iii ⬤

**e¨vL¨v :** i. a2 − b2 = (a + b)(a − b) = 13 × 3 = 39; myZivs Dw³wU mwVK|

ii. 2(a2 + b2) = (a + b)2 + (a − b)2 = (13)2 + 32

= 169 + 9 = 178; myZivs Dw³wU mwVK|

iii. 4ab = (a + b)2 − (a − b)2 = (13)2 − 32

= 169 − 9 = 160; myZivs Dw³wU mwVK|



**wb‡Pi Z‡\_¨i Av‡jv‡K 2 I 3 bs cÖ‡kœi DËi `vI :**

x2 − 3x + 1 = 0. [Xv. †ev. Õ18]

1. **− Gi gvb KZ?**

K L M 5 N 7 ⬤

1. **x2 – Gi gvb wb‡Pi †KvbwU?**

K 3 L 5 M 7 N 9 ⬤

**wb‡Pi Z‡\_¨i Av‡jv‡K 4 I 5 bs cÖ‡kœi DËi `vI :**

3x + 2y = 8, 3x − 2y = 4 [h. †ev. Õ18]

1. **9x2+ 4y2 Gi gvb KZ?**

K 16 L 24 M 40 N 100 ⬤

**e¨vL¨v :** 9x2 + 4y2 = =

= =

= = 40

1. **xy Gi gvb KZ?**

K 2 L 6 M 12 N 24 ⬤

|  |  |  |
| --- | --- | --- |
| **e¨vL¨v :** | 3x + 2y = 8  3x – 2y = 4  (+) K‡i 6x = 12  ev, x = 2  ∴ xy = 2 × 1 = 2 | Avevi 3x + 2y = 8  3x – 2y = 4  (–) (+) (–)  (–) K‡i 4y = 4  ∴ y = 1 |

**wb‡Pi Z‡\_¨i Av‡jv‡K 6 I 7 bs cÖ‡kœi DËi `vI :**

x + y = 10 Ges x – y = 6 n‡j- [P. †ev. Õ18]

1. **2x2 + 2y2 Gi gvb KZ?**

K 64 L 128 M 136 N 272 ⬤

1. **xy Gi gvb KZ?**

K 136 L 64 M 36 N 16 ⬤

**wb‡Pi Z‡\_¨i Av‡jv‡K 8 I 9 bs cÖ‡kœi DËi `vI :**

a2 – 5a + 1 = 0 [iv. †ev. Õ18]

1. **a + Gi gvb †KvbwU?**

K 5 L 1 M –1 N –5 ⬤

1. **a – Gi gvb †KvbwU?**

K L M N ⬤

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 100 I 101 bs cÖ‡kœi DËi `vI :**

x2 – 4x + 1 = 0 [e. †ev. Õ17]

1. **Gi gvb KZ?**

K 0 L 2 M 12 N 20 ⬤

**e¨vL¨v :** †`Iqv Av‡Q, x2 − 4x + 1 = 0 ev, + = ∴ x + = 4

GLb, − = − 4x = (4)2 − 4 = 16 − 4 = 12

1. **x4 + = KZ?**

K 7 L 9 M 34 N 194 ⬤

**e¨vL¨v :** x4 + = (x2)2 +

= − 2x2 = − − 2

= {(4)2 − 2}2 − 2 = (14)2 − 2 = 194

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 102 I 103 bs cÖ‡kœi DËi `vI :**

x – = 5. [w`. †ev. Õ17]

1. **Gi gvb wb‡Pi †KvbwU?**

K 21 L 23 M 25 N 29 ⬤

**e¨vL¨v :** †`Iqv Av‡Q, x – = 5

= + 4x . = (5)2 + 4 = 25 + 4 = 29

1. **Gi gvb wb‡Pi †KvbwU?**

K 10 L 23 M 25 N 27 ⬤

**e¨vL¨v :** x2 + = + 2. x. = (5)2 + 2 = 25 + 2 = 27

**wb‡Pi Z‡\_¨i Av‡jv‡K 104 I 105 bs cÖ‡kœi DËi `vI :**

p + q = 3, pq = 1. [Kz. †ev. Õ17]

1. **p2 + q2 Gi gvb wb‡Pi †KvbwU?**

K 5 L 7 M 11 N 13 ⬤

**e¨vL¨v :** p2 + q2 = (p + q)2 − 2pq = 32 − 2 × 1 = 9 − 2 = 7

1. **p – q Gi gvb wb‡Pi †KvbwU?**

K L M N 5 ⬤

**e¨vL¨v :** p − q = − = −×

= − =

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 106 I 107 bs cÖ‡kœi DËi `vI :**

a + b = 4, a – b = 2. [P. †ev. Õ17]

1. **4ab = ?**

K 6 L 10 M 12 N 20 ⬤

**e¨vL¨v :** 4ab = (a + b)2 − (a − b)2 = 42 − 22 = 16 − 4 = 12

1. **2(a2 + b2) = ?**

K 6 L 10 M 12 N 20 ⬤

**e¨vL¨v :** 2(a2 + b2) = (a + b)2 + (a − b)2 = 42 + 22 = 16 + 4 = 20

⏹ **wb‡Pi Z‡\_¨i Av‡jv 108 I 109 bs cÖ‡kœi DËi `vI :**

a + b = 4 Ges a – b = 2 n‡j- [wm. †ev. Õ16]

1. **a2 + b2 Gi gvb KZ?**

K 20 L 12 M 10 N 6 ⬤

1. **ab Gi gvb KZ?**

K 3 L 10 M 16 N 20 ⬤

⏹ **wb‡Pi Z‡\_¨i wfwË‡Z 110 I 111 bs cÖ‡kœi DËi `vI:**

a + b = 3, ab = 1 n‡j− [P. †ev. Õ15]

1. **a2 + b2 Gi gvb KZ?**

K 11 L 5 M 7 N 13 ⬤

1. **(a − b) Gi gvb KZ?**

K 5 L M N ⬤

⏹ **wb‡Pi Z‡\_¨i Av‡jv‡K 112 I 113 bs cÖ‡kœi DËi `vI :**

x − = 4 [Kz. †ev. Õ15]

1. **= KZ?**

K 2 L 14 M 18 N 20 ⬤

1. **x2 + Gi gvb KZ?**

K 12 L 14 M 18 N 20 ⬤