

PA-1 Sample Paper — Class 9 Maths 2026-27 (Ch 1-2)

Answer Key — PA-1 2026-27

Section A

Q1 — (C) III. $x = -5$ (negative), $y = -8$ (negative) — dono negative hone par point Quadrant III mein hota hai.

Q2 — (B) y-axis par. x-coordinate 0 hai, isliye point y-axis par hai.

Q3 — (B) $(-3, -9)$. y-axis mein reflect karne par $(x, y) \rightarrow (-x, y)$ — sirf x ka sign badalta hai, y same rehta hai. To $(3, -9) \rightarrow (-3, -9)$.

Q4 — (B) 1. x ki sabse badi power 1 hai, isliye degree 1 hai (linear polynomial).

Q5 — (C) $3x - 8$. Yeh degree-1 polynomial hai ($a = 3 \neq 0$). Option (A) degree 2 hai, (B) ek constant hai (degree 0), (D) degree 3 hai.

Section B

Q6. $(-2, 5)$: x negative, y positive $\rightarrow$ Quadrant II. x-axis mein reflect karne par $(x, y) \rightarrow (x, -y)$: $(-2, 5) \rightarrow (-2, -5)$.

Q7. y-axis par hone ka matlab abscissa $(x) = 0$: $a - 2 = 0 \Rightarrow a = 2$. Ordinate $= 2(2) + 1 = 5$. Isliye $P = (0, 5)$.

Q8. $9x - 27 = 0 \Rightarrow 9x = 27 \Rightarrow x = 3$. Check: $p(3) = 9(3) - 27 = 27 - 27 = 0 \checkmark$.

Q9. (i) $y = 15x + 50$. (ii) $x = 8$ par: $y = 15(8) + 50 = 120 + 50 = 170$.

Section C

Q10. $P(-6, 4)$ ko x-axis mein reflect kijiye: $(x, y) \rightarrow (x, -y) \Rightarrow (-6, -4)$.

Ab is naye point $(-6, -4)$ ko y-axis mein reflect kijiye: $(x, y) \rightarrow (-x, y) \Rightarrow (6, -4)$.

Isliye $Q = (6, -4)$, jo x positive aur y negative hone ki wajah se Quadrant IV mein hai.

Q11. (i) $x = 0$ par: $h(0) = 2(0) + 10 = 10$ cm.

(ii) $30 = 2x + 10 \Rightarrow 2x = 20 \Rightarrow x = 10$ hafte.

(iii) $25 = 2x + 10 \Rightarrow 2x = 15 \Rightarrow x = 7.5$. Kyunki x poora number nahi hai (7.5 hafte, jo whole week nahi hai), 25 cm height kisi bhi poore hafte ke ant mein nahi hogi.

Q12. Linear polynomial ke liye x ka coefficient zero nahi ho sakta: $2k - 3 \neq 0 \Rightarrow k \neq 3/2$.

Zero: $(2k - 3)x + 5 = 0 \Rightarrow x = -5 / (2k - 3)$.

Check ($k = 2$): coefficient $= 2(2) - 3 = 1$, polynomial $= x + 5$, zero $= -5$. Formula se: $-5/(2(2)-3) = -5/1 = -5 \checkmark$.

Section D

Q13 (i). $x = 3$ par: $y = 2(3) + 1 = 7$. Point $(3, 7)$: x positive, y positive $\rightarrow$ Quadrant I.

Q13 (ii). Zero: $0 = 2x + 1 \Rightarrow 2x = -1 \Rightarrow x = -1/2$.

Q13 (iii). Point $(3, 7)$ ko x-axis mein reflect karne par $(x, y) \rightarrow (x, -y)$: naya y-coordinate $= -7$.