# Worksheet: Linear Equations in Two Variables

Madhya Pradesh State Board · Class 9 · Mathematics · 14 questions · 31 marks

| Name: _____ | Date: _____ | Score: _____ / 31 |
|---|---|---|

**Q1.** Express 5y = 3x  7 in standard form ax + by + c = 0 and write a, b, c. *[1 mark]*

**Q2.** Is (2, 1) a solution of 3x + 2y = 4? *[1 mark]*

**Q3.** Is (1, 3) a solution of 2x  y + 1 = 0? *[1 mark]*

**Q4.** Write the equation of the x-axis. *[1 mark]*

**Q5.** Equation of the horizontal line through (4, 2)? *[1 mark]*

**Q6.** Find four solutions of 2x + 3y = 12. *[2 marks]*

**Q7.** If (3, k) is a solution of 4x + 3y = 18, find k. *[2 marks]*

**Q8.** Find the x- and y-intercepts of 3x  4y = 12 and sketch the line. *[3 marks]*

**Q9.** A line passes through (0, 5) and (5, 0). Find its equation. *[2 marks]*

**Q10.** Find three solutions of 2x + y = 0 and identify what's special. *[2 marks]*

**Q11.** If (4, 2) is a solution of px + 3y = 14, find p. *[3 marks]*

**Q12.** A taxi charges ₹50 booking fee plus ₹15 per km. Let x = distance in km and y = total fare. Write the linear equation, find three solutions, and identify the y-intercept and what it represents in this context. *[4 marks]*

**Q13.** Show that the line passing through (1, 1), (2, 2) and (3, 3) is y = x, and find the point on this line whose x-coordinate is 5. *[4 marks]*

**Q14.** Plan A: ₹100 fixed + ₹2/min talktime. Plan B: ₹0 fixed + ₹3/min. For what talktime are the two plans equally expensive? *[4 marks]*