

CLASS 9 · HOTS · OLYMPIAD PREPARATION · DPP SHEET

## Chapter 13: HOTS: Two Variables, One Line (Class 9)

Daily practice problems: 8 questions with an answer key

Try every question on your own first. The answer key is on the last page.

1. Solve  $x + y = 14$  and  $x - y = 4$ .
2. Find the slope of the line through  $(-1, 3)$  and  $(2, -3)$ .
3. Solve  $3x + 2y = 16$  and  $x - y = 2$ .
4. Find  $k$  if the point  $(1, -2)$  lies on the line  $3x + ky = 7$ .
5. The sum of two numbers is 60 and their difference is 14. Find the numbers.
6. 5 pens and 3 pencils cost Rs 31, and 2 pens and 4 pencils cost Rs 18. Find the cost of a pen and of a pencil.
7. Find the point where the lines  $2x + y = 5$  and  $x - y = 1$  meet.
8. Do the lines  $2x + 3y = 6$  and  $4x + 6y = 7$  meet? Why?

## Answer Key

---

1.  $x = 9$  and  $y = 5$ .
2.  $-2$ .
3.  $x = 4$  and  $y = 2$ .
4.  $k = -2$ .
5. 37 and 23.
6. A pen costs Rs 5 and a pencil costs Rs 2.
7.  $(2, 1)$ .
8. No. They have the same slope but are different lines, so they are parallel.

MathSetu