

# Lines

1. What is a line?
2. Describe the line containing the points  $(-2, 3)$  and  $(5, -9)$ .
3. Describe the line containing the points  $(-2, 3)$  and  $(2, 3)$ .
4. Describe the line containing the points  $(-2, 3)$  and  $(-2, -9)$ .
5. Describe the line containing the points  $(x_1, y_1)$  and  $(x_2, y_2)$ .
6. Describe the line containing the points  $(-2, 3, 5)$  and  $(-2, 3, 7)$ .
7. Describe the line containing the points  $(-2, 3, 5)$  and  $(-2, 4, 7)$ .
8. Describe the line containing the points  $(-2, 3, 5)$  and  $(1, 2, 7)$ .
9. Describe the line containing the points  $(x_1, y_1, z_1)$  and  $(x_2, y_2, z_2)$ .
10. Describe the line that is the intersection of the two planes given by the equations  $2x + y - 5z = 3$  and  $x - y - 2z = -4$ .
11. Describe the line containing the points  $(-2, 3, 5, -1)$  and  $(1, 2, 7, 0)$ .
12. Describe the line containing the points  $(w_1, x_1, y_1, z_1)$  and  $(w_2, x_2, y_2, z_2)$ .