(x+1,y)
, (x−1,y)
, (x,y+1)
and (x,y−1)
if i am allowed this moment only and then what is distance between two points

You're describing **grid movement** where from any point (x, y), you can move only in **4 directions**:

- $(x + 1, y)$
- $(x - 1, y)$
- $(x, y + 1)$
- $(x, y - 1)$

This is **Manhattan movement** (a.k.a. 4-directional grid movement).

✅ Distance between two points

If you are allowed **only these moves**, the distance between two points (x_1, y_1) and (x_2, y_2) is:

$$\text{Manhattan Distance} = |x_1 - x_2| + |y_1 - y_2|$$

🧠 Why?

You must move horizontally and vertically.
To go from (x_1, y_1) to (x_2, y_2):

- You must shift $|x_1 - x_2|$ units in x-direction.
- And $|y_1 - y_2|$ units in y-direction.

Total moves = sum of both.

⚡ Example

Between $(3, 5)$ and $(10, 2)$:

$$|3 - 10| + |5 - 2| = 7 + 3 = 10$$

So distance = **10** moves.

If you want, I can also tell you:

- What if diagonal moves are allowed?
- What if knight moves are allowed?
- What if weighted grid?

Just ask!