

§ 6.2 #13

(#31 in book)

$$w + 9z = -4 \implies$$

$$\underline{w = -9z - 4}$$

$$x + z = -7 \implies$$

$$\underline{x = -z - 7}$$

$$y - 7z = -1 \implies$$

$$\underline{y = 7z - 1}$$

So  $z$  is "free":  $w, x, y$  depend on  $z$ , but  $z$  can be any real #.

This happens when the solution is a line.

There are as many solutions as there are possible values of  $z$