

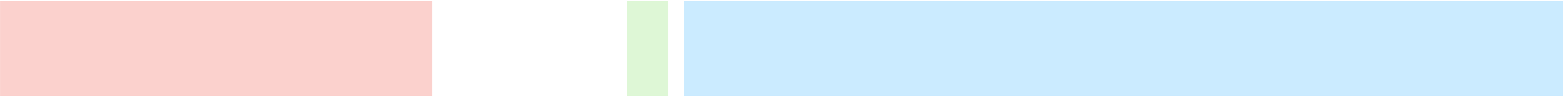


# Linear Equations (Printset)

linear equations in *int* sets:

$$\{ (s_1, s_2, \dots, s_n) \in \mathbb{R}^n : a_1 s_1 + a_2 s_2 + \dots + a_n s_n = b \}$$

These points are also called *vectors*, and  $\mathbb{R}^3$  is an example of a *vector space*



The collections of numbers such that the equation holds.

# Linear Equations (Point sets)

Linear equations describe *point sets*:

$$\{(s_1, s_2, \dots, s_n) \in \mathbb{R}^n : a_1s_1 + a_2s_2 + \dots + a_ns_n = b\}$$

The collections of numbers such that the equation holds.

These points are also called *vectors*, and  $\mathbb{R}^3$  is an example of a *vector space*

# Linear Equations (Geometrically)

If a 2D linear equation is a ***line*** then a 3D linear equation is...