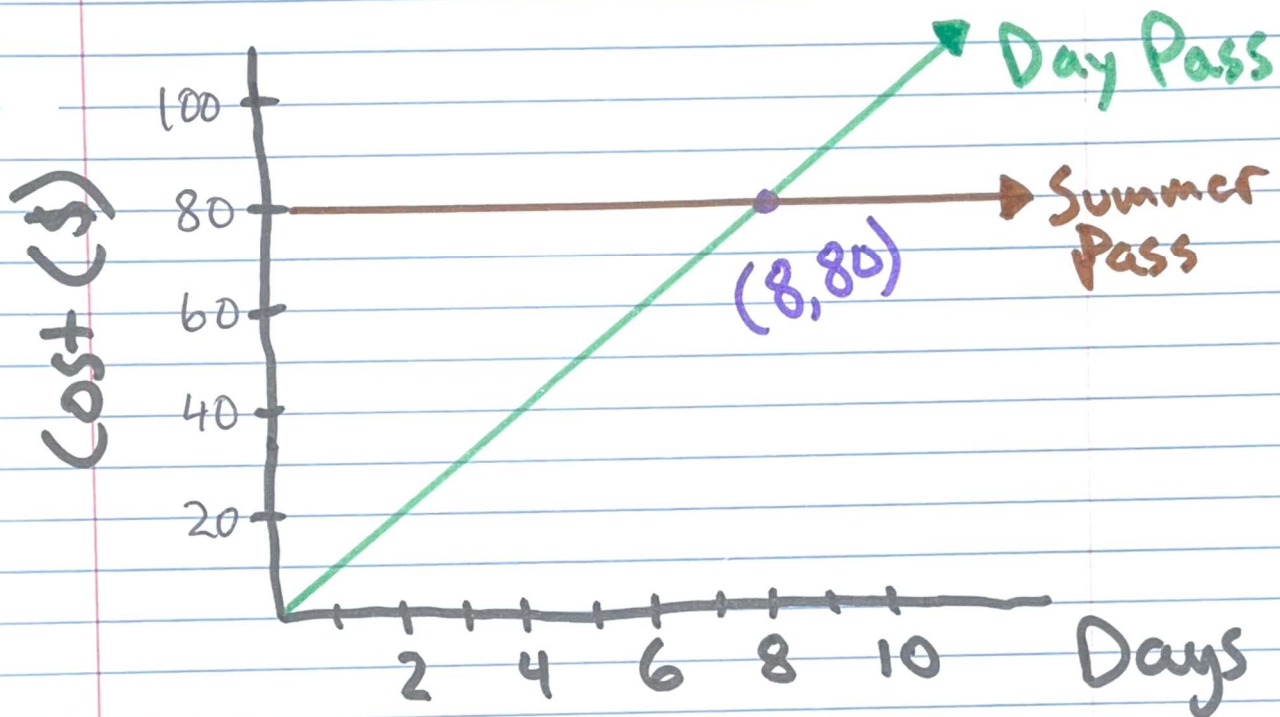


4-8
Lesson ~~3-10~~ → Introduction to Systems of Equations

Up to now, there was **One** line.

A "system" means **Multiple** lines.

A beach's summer parking pass is \$80. A day pass is \$10.



Day Pass $y=10x$ ← better if < 8

Summer Pass $y=80$ ← better if > 8

Molly's Movies rents movies for a flat fee of \$20 per month for unlimited rentals

Rachel's Rentals charges a flat fee of \$5 per month and \$2.50 per rental

y = total monthly cost

x = number of rentals

Molly's $y = 20$ Rachel's $y = 2.5x + 5$

When do they cost the same?

$$20 = 2.5x + 5$$

$$\begin{array}{r} -5 \\ 20 = 2.5x + 5 \\ \hline 15 = 2.5x \end{array}$$

$$15 = 2.5x$$

$$\begin{array}{r} \overline{2.5} \quad \overline{2.5} \\ 15 = 2.5x \\ \hline 6 = x \end{array}$$

$$6 = x$$

After 6 rentals, both cost \$20

and...

if you graphed it...

Molly $y=20$

Rachel $y=2.5x+5$

