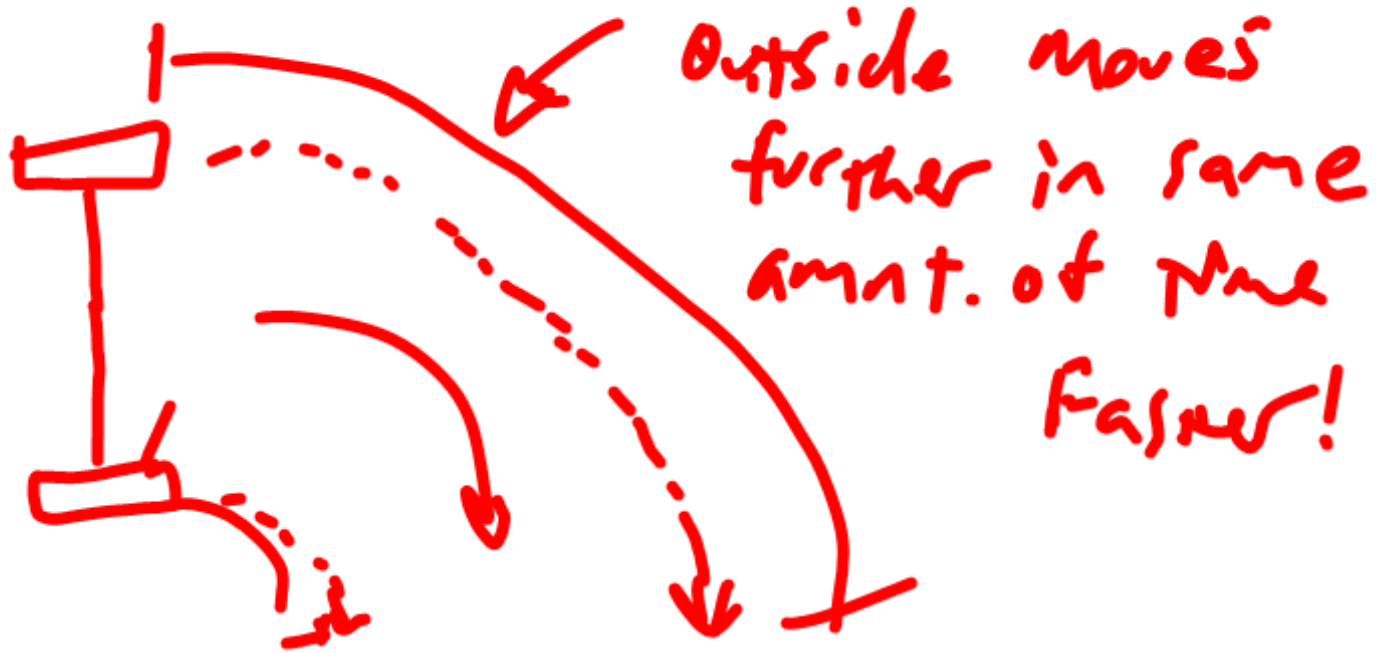


Velocity - Speed in a direction

Acceleration - \uparrow Speed, \downarrow Speed
 Δ direction



$$\text{Accel} = \frac{\text{Fin. Speed} - \text{init speed}}{\text{Time}}$$

$$\text{Accel} = \frac{40 \text{ m/s} - 0 \text{ m/s}}{5 \text{ s}} = \frac{40 \text{ m}}{5 \text{ s}}$$

$$A = 8 \frac{\text{m}}{\text{s}^2}$$

A blue circle highlights the unit $\frac{\text{m}}{\text{s}^2}$ in the equation above. A dashed blue circle highlights the number 8.

Distance Time

Distance

120

90

60

30

0

2

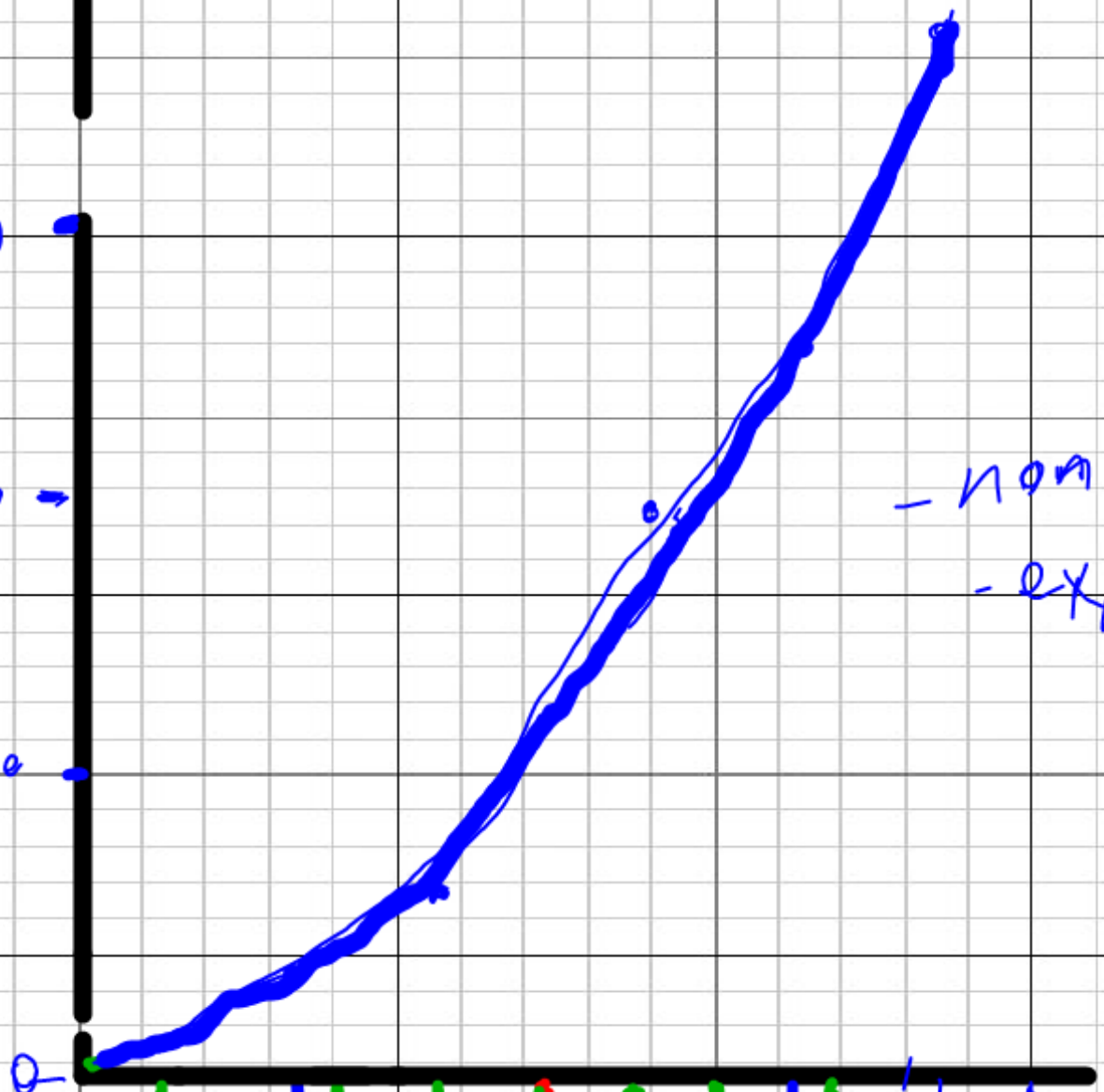
4

6

8

(Time)

- non-linear
- exponential



$$\frac{8m}{2s} = \frac{F-I}{T} \frac{8-0}{2 \text{ sec.}} = \frac{4m}{1s}$$

$\frac{4m}{5}$ avg.

T	D
1	4m
2	12m $\leftarrow \frac{8m}{5}$
3	24m $\leftarrow \frac{12m}{5}$
4	40m $\leftarrow \frac{16m}{5}$
5	60m $\leftarrow \frac{20m}{5}$
6	84m $\leftarrow \frac{24m}{5}$
7	112m $\leftarrow \frac{28m}{5}$

