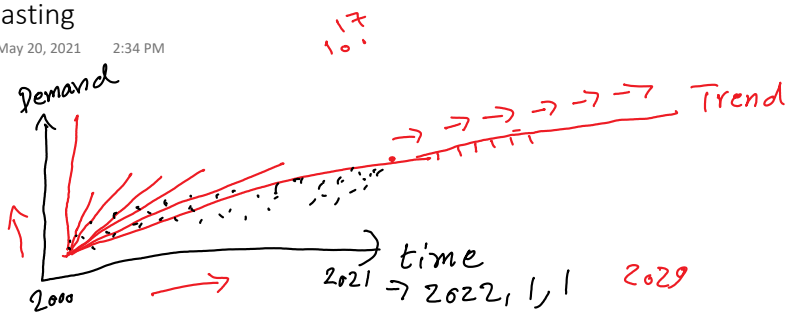
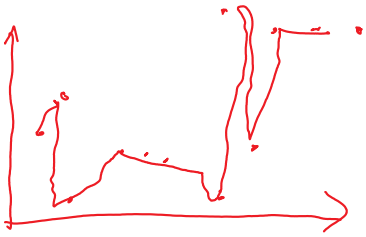
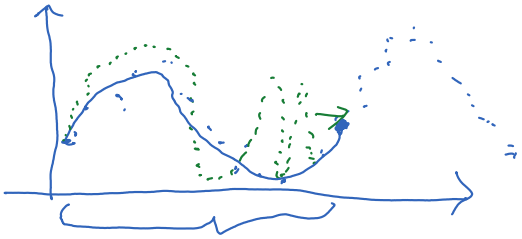
Forecasting

Thursday, May 20, 2021 2:34 PM







probablity of risk of another pick → there should be thinking about this

Month	Demand	Naïve	3-months Moving average	5-months Moving average
Jan	120	—	—	—
Feb	90	120	—	—
Mar	100	90	—	—
Apr	75	100	103.3	—
May	110	75	88.3	—
Jun	50	110	95	99
Jul	75	50	78.3	85
Aug	130	75	78.3	82
Sep	110	130	85	88
Oct	90	110	105	95
Nov	-	90	110	91

n=3

$$MA_3 = \frac{\sum_{i=1}^{3} D_i}{3}$$

$$MA_3 = \frac{120+90+100}{3} = \frac{310}{3} = 103.3$$

$$MA_3 = \frac{90+100+75}{3} = 88.3$$

$$MA_3 = \frac{110+75+100}{3} = 95$$

$$MA_3 = \frac{75+110+50}{3} = 78.3$$

$$MA_3 = \frac{75+50+110}{3} = 78.3$$

$$MA_3 = \frac{130+75+50}{3} = 85$$

$$MA_3 = \frac{110+130+75}{3} = 105$$

$$MA_3 = \frac{90+110+130}{3} = 110$$

$$MA_5 = \frac{\sum_{i=1}^{5} D_i}{5}$$

$$MA_5 = \frac{110+75+100+90+120}{5} = 99$$

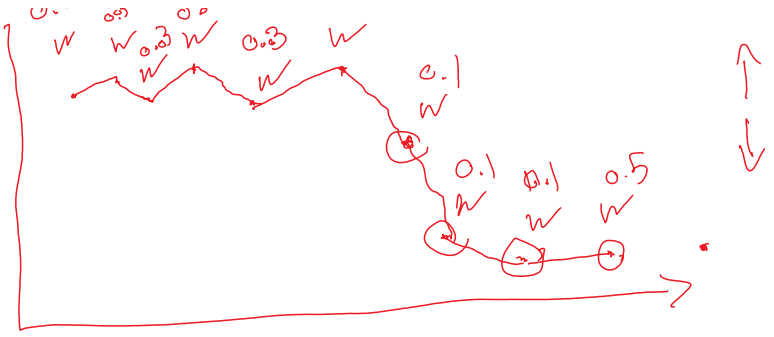
↓

the rest

do it yourself

$$\sum_{i=1}^{n} W_i = 1$$

$$0 \leq W \leq 1$$



	W	Demand
Aug	0.17	130
Sep	0.33	110
Oct	0.5	90

$$WMA_3 = \frac{\sum_{i=1}^{3} W_i D_i}{\sum_{i=1}^{3} W_i}$$

$$WMA_3 = \frac{0.17 \times 130 + 0.33 \times 110 + 0.5 \times 90}{0.17 + 0.33 + 0.5} = 103.4$$