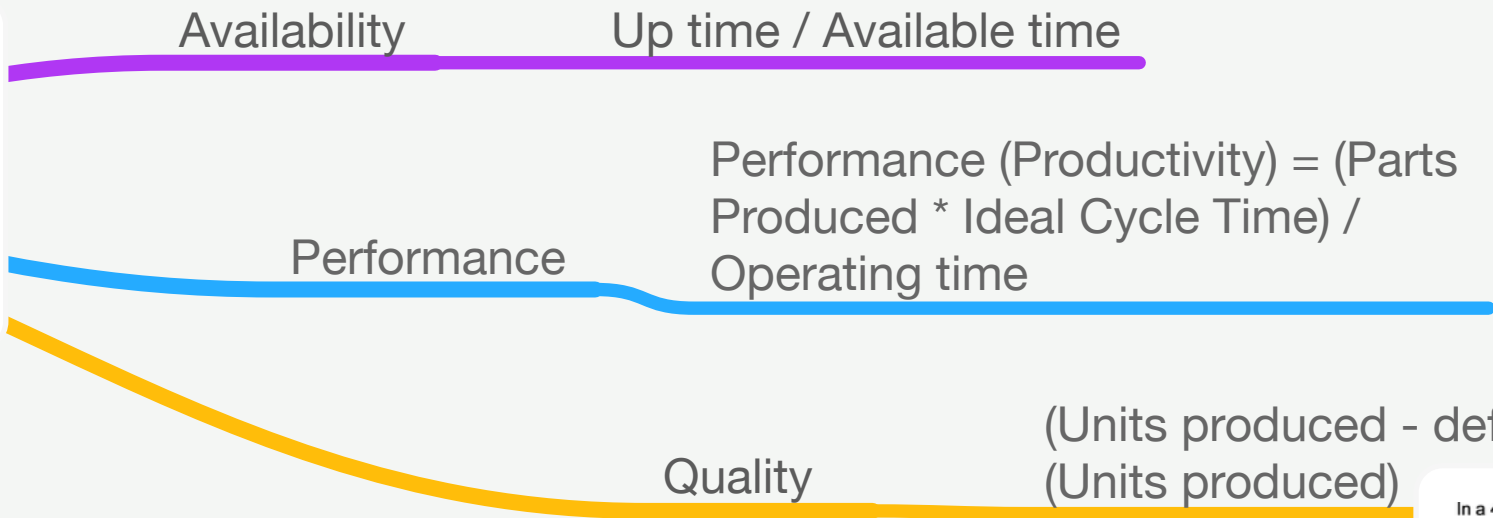


OEE

Overall Equipment Effectiveness

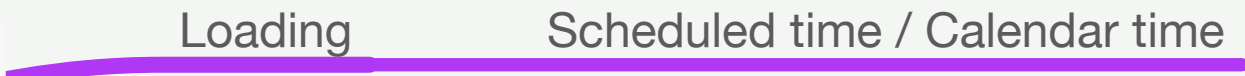
Availability X Performance X Quality

Or Actual time / Optimal time



TEEP

Total Effective Equipment Performance



In a 480 minute shift :-
On a machine rated at 100 products output per minute
Maximum output = 480 mins x 100 units = 48000 units

Shift info:

Output (Good Production)	= 32000 units
Speed	= 98 units per minute
Planned downtime	= 82 mins
Bottleneck loss due to B/down	= 30 mins
Rejects (in process)	= 1255 in 8 hr shift

Output (OEE) = 32000 / 48000 = 66.7%
480mins x 66.67% = 320 mins, therefore Total Loss = 160 mins

Six Loss Calculations:
Speed loss
Max theoretical units possible at actual speed = 98 x 480 = 47040
= (32000/47040) – (32000/48000) =
68.03% - 66.67% = 1.36%
480 x 1.36%
= 6.53 mins / 480 = (1.36%)

Planned downtime
= 82 mins / 480 = (17.08%)

Breakdown
= 30 mins / 480 = (6.25%)

Rejects = 1255 / 98 (actual running speed)
= 12.81 mins / 480 = (2.67%)

Minor stops = 480-320-6.53-82-30-12.81
= 28.66 mins / 480 = (5.97%)

<u>Total loss</u> = 160 mins		= (33.33%)
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OEE Calculations (Time in mins):
Production time = 480 Time less availability loss = 368 Time less performance loss = 333

<u>Availability Loss</u>	<u>Performance Loss</u>	<u>Quality Loss</u>
Planned downtime =82	Speed loss =6.53	Rejects on start up =0
Breakdowns =30	Minor stops (<5mins) =28.66	Rejects in process =12.81
<u>Total</u> =112	<u>Total</u> =35.19	<u>Total</u> =12.81
Availability (368/480) = 77%	Performance (333/368) = 90%	Quality (320/333) = 96%

OEE = 0.77x0.9x0.96 = 66.7%

Six loss calculations