calculating

OEE - SAMPLE CALCULATION:

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%)
Total loss	**= 160 mins**	**= (33.33%)**

OEE CALCULATIONS: (Time in Minutes)

Production time = 480 Time less availability loss = 368 Time less performance loss = 333

Availability Loss		Performance Loss		Quality Loss	
Planned downtime	=82	Speed loss	=6.53	Rejects on start up	=0
Breakdowns	=30	Minor stops (<5mins)	=28.66	Rejects in process	=12.81
Total	*=112*	*Total*	*=35.19*	*Total*	*=12.81*

AVAILABILITY
(368/480) = 77%

PERFORMANCE
(333/368) = 90%

QUALITY
(320/333) = 96%

OEE
= 0.77 x 0.9 x 0.96

OEE = 66.7%