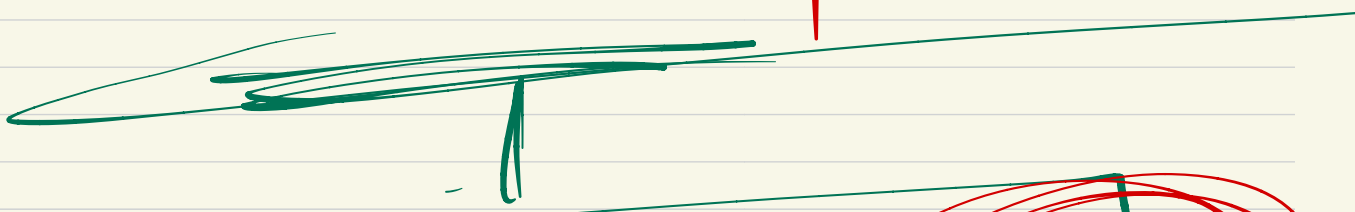


700 Cost

1000 SP

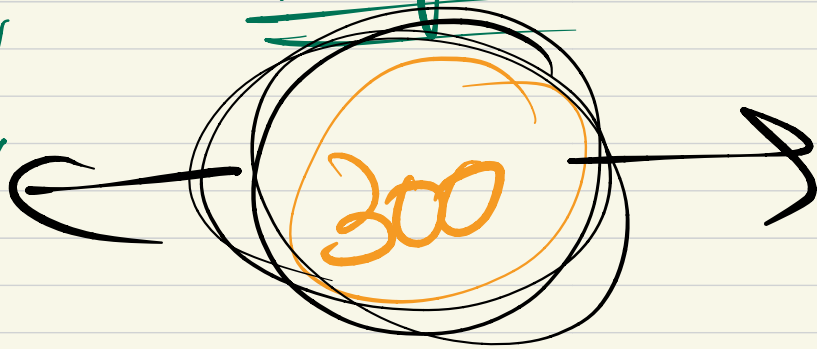


Profit

MMD

50%

50%



150

150

Tension free

100

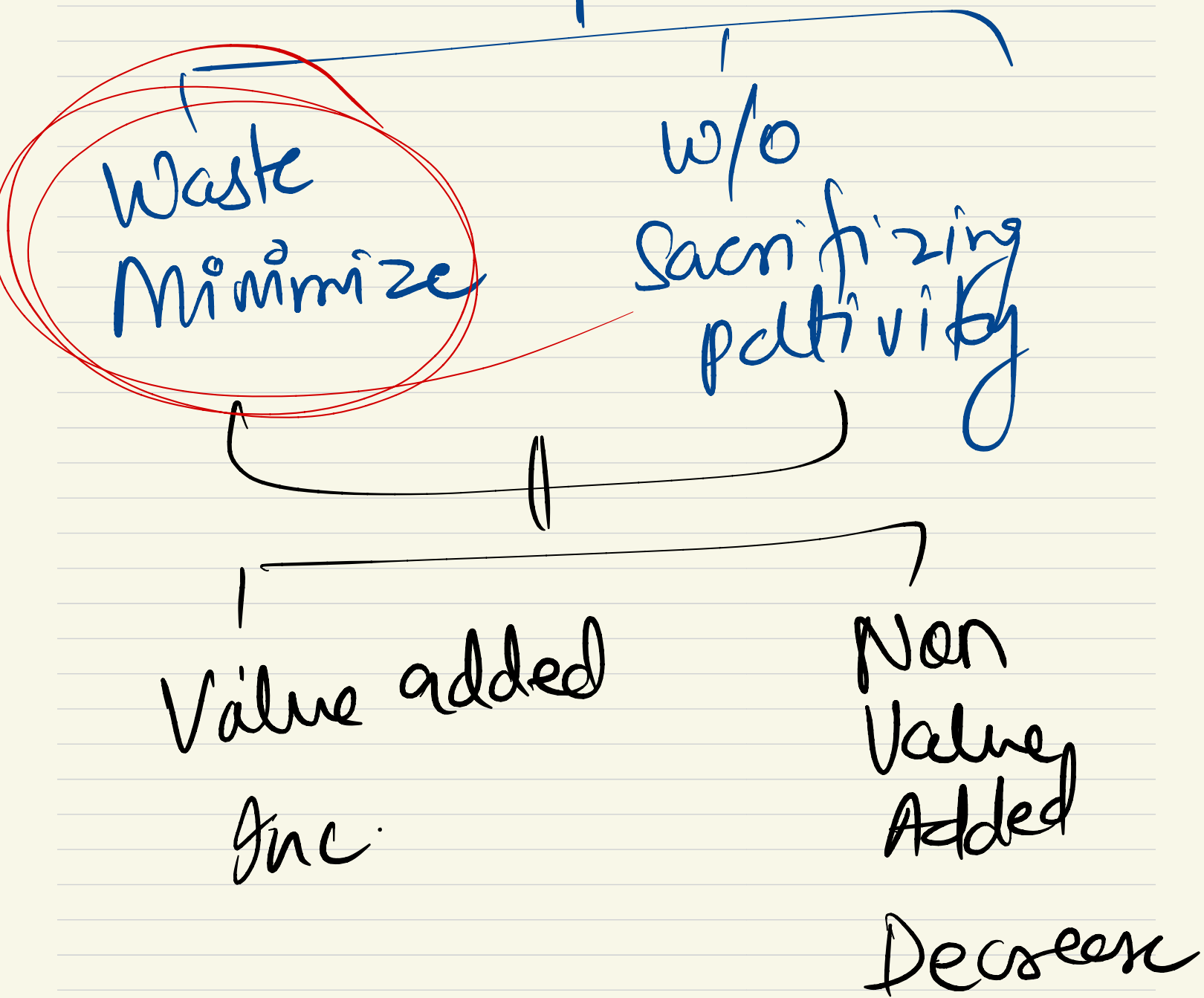
50% ↑



Gain Sharing:

- Supplier perform Contract, no guarantee
 - Win - Win Sitn (Customer / Supplier)
 - Supplier → Risky
 - Supplier Takes Equity share
- walk away with money huge profits

lean system



Waste Min

T : Transport

i : Inventory

M : Motion

W : Waiting

O : Over processing

O : Over production

D : Defects

Principles of Lean

P : Perfect first time
Quality

W : Waste Minimize

C : Cost ↓

F : Flex.

Techg. of Lean Sys

- JIT
- Kaizen
- 5-S
- TPM
- Cellular Mfg
- 6 sigma

JIT

pdn
↓

of goods
on Actual
Sales dd^r.

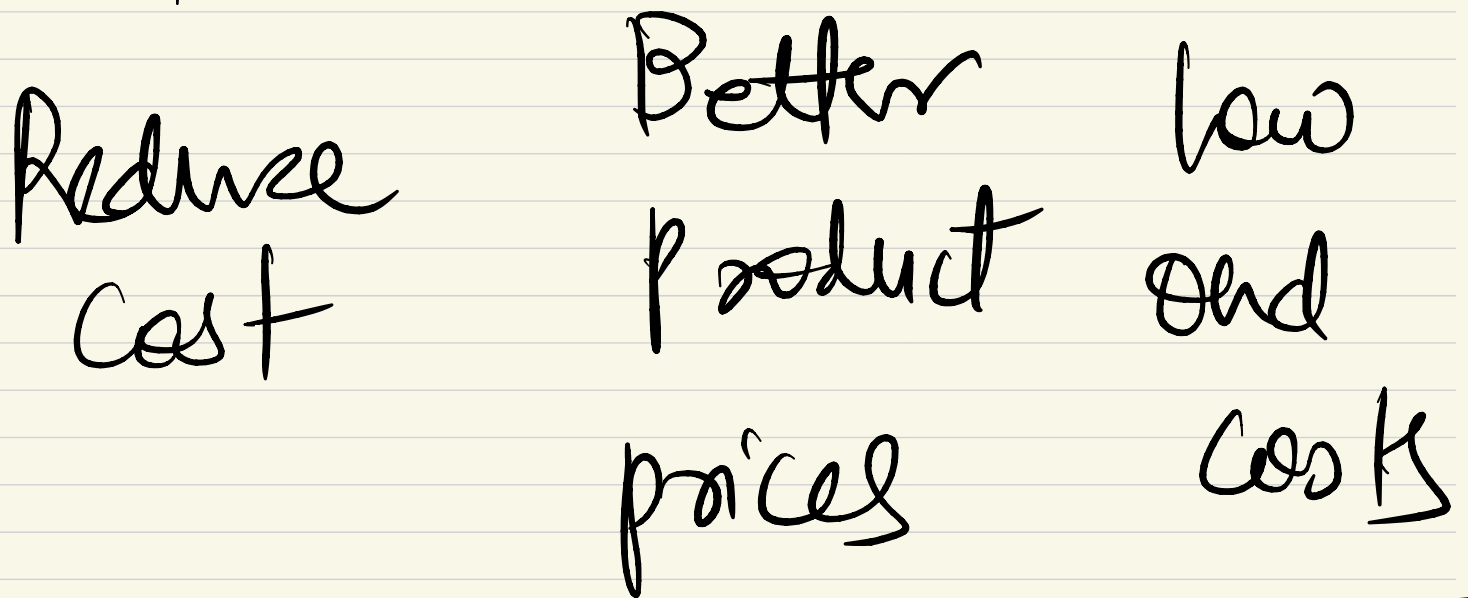
Purchase
↓

Provision
of RM
based on
pdn.

JIT flow :

- Supplier exact Qty
- Drop RM @ Machine
- Supplier review
Eng Staff
- EDI
- Shorter set up times
- Employee Tr.
- Back flush

Impact of IT



Back flushing

(AIC Sys. of JIT)

Ultra Cel.

(Single Consolidated)

Pdn. →

Pdn
x RM/unit
pd.

↓
Total RM

⊕/⊖

d. / of Stk

⊕/⊖

Normal / Abn.
Uses.

Issue in Bf

LIPS

pdn
reporting

Scrap
rep.

let
foacis

Inventory
accuracy

Kaizen:

$$(1)^{365} = 1$$

$$(1.01)^{\textcircled{365}} = \underline{37}$$

Kaizen
Change for Better

Continual
Examination

+

Improve
existing
processes

- Small, incremental, routinely applied
- Sustained long period



Significant
Improvement.

(not a radical
change)

Principles + Benefits of Kaizen

- Teamwork
- Employee Suggestion
- Participative
- Less no. of defectives
- Strong discipline
- Improves overall
profit

5-S

(Workplace Org'n Method)

S₁ : Sort (Remove unnecessary goods)

S₂ : Set in order

S₃ : Shine (Cleaning)

S₄ : Standardize

S₅ : Sustain

6S : Safety

TPM (used for
Machines)
||
(process) Maintenance
Integrity

ERO:

==

• Breakdown

• Defect

• Accident

• Small

stops.

8 Pillars

- Autonomous M.

o focused Imp.

o Planned M.

o Early Equipment

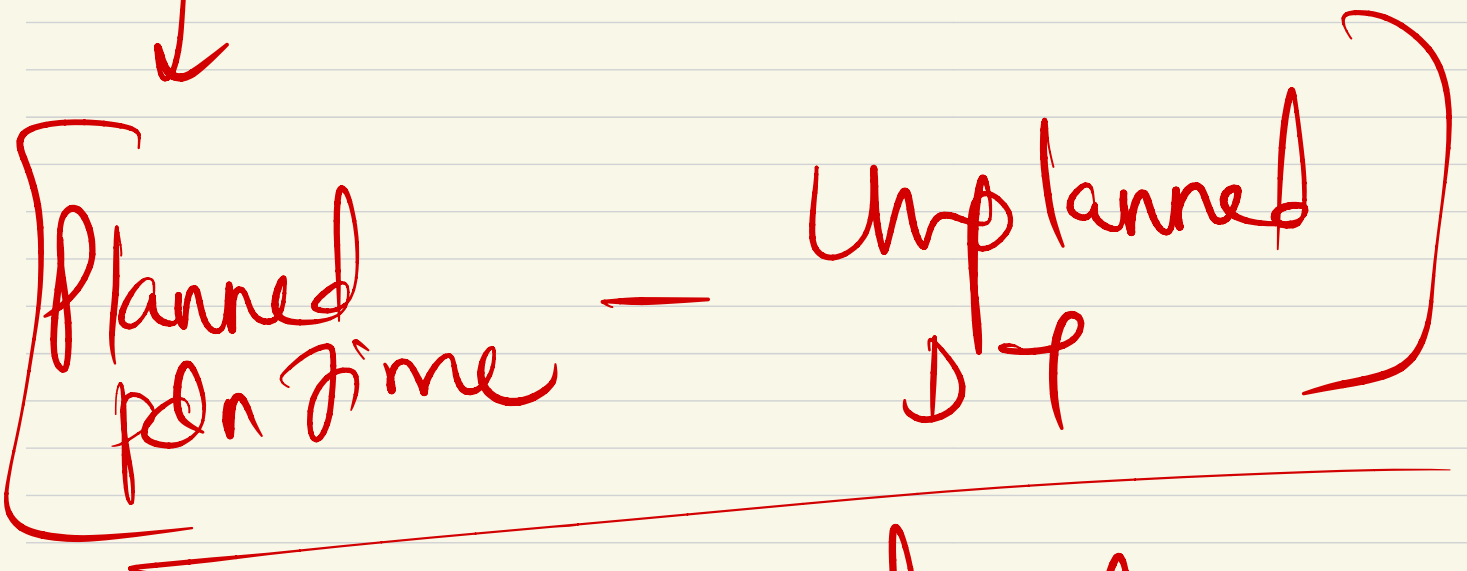
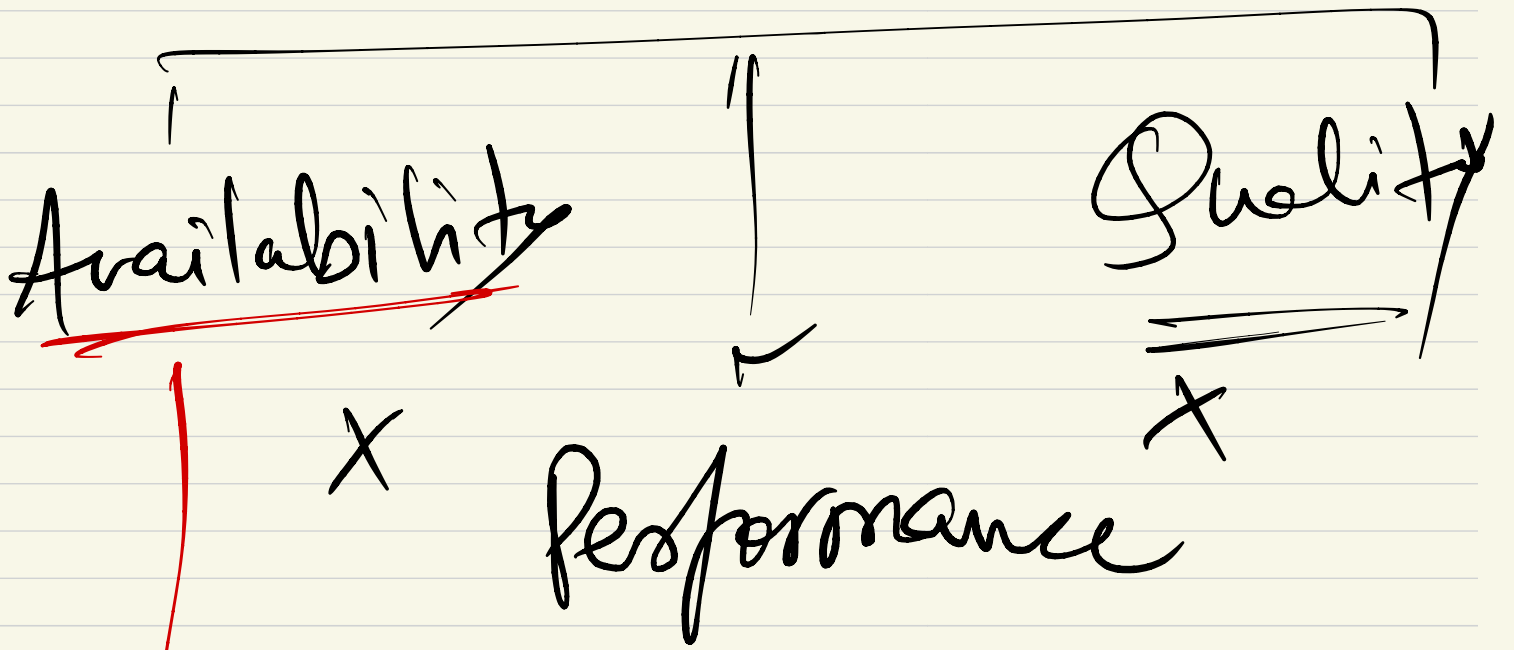
o Quality M.

o Safety & Health

o Educ'n & Tr.

o TPM in Activi-

OEE



Planned pdn time

(Total time - Planned Downtime)

Perf →

Std time for Act.
pdn

Act. time
taken

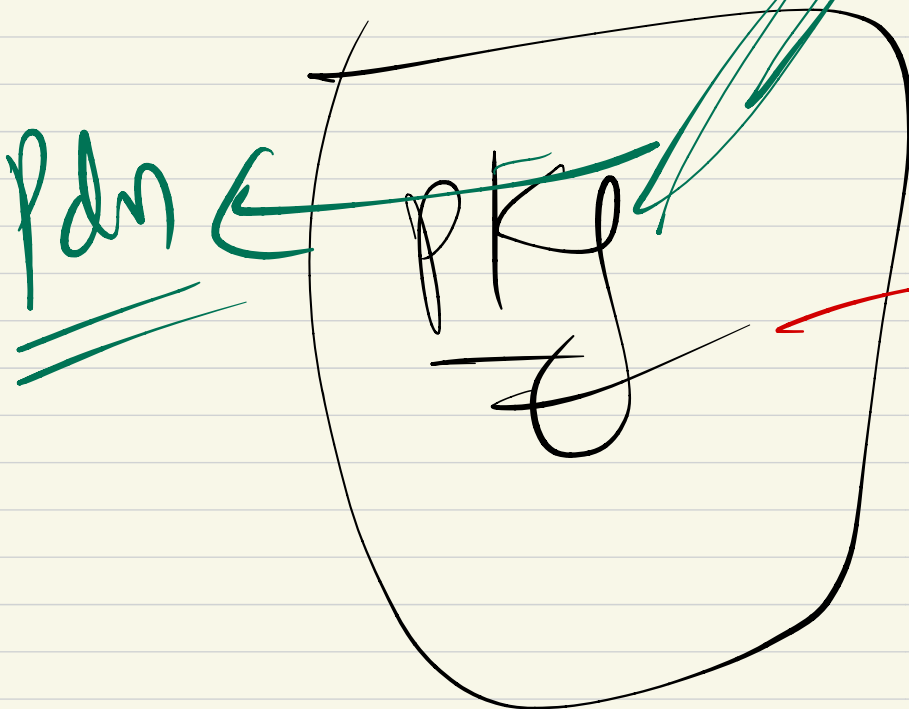
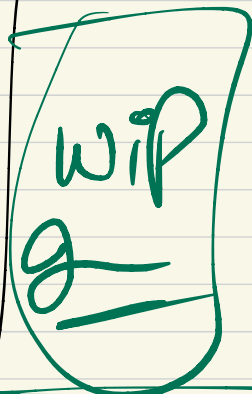
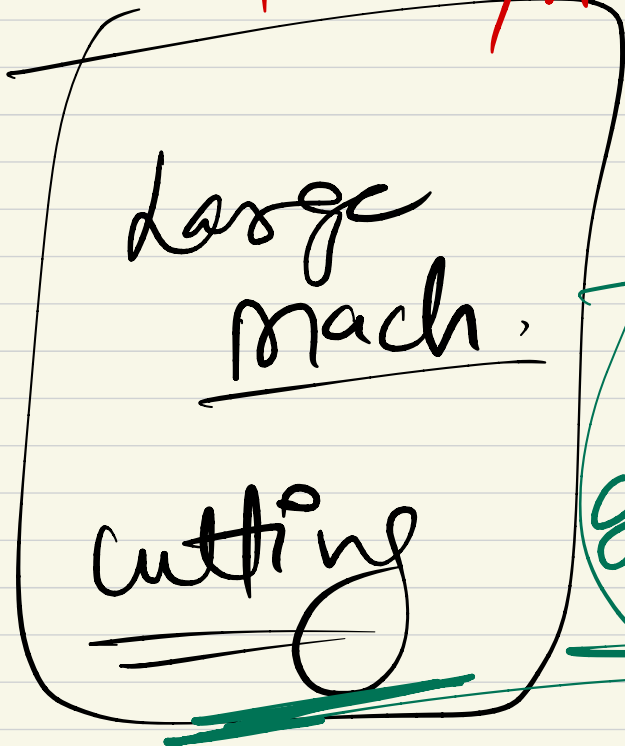
Quality

Total pdn - Defect
Total Pdn

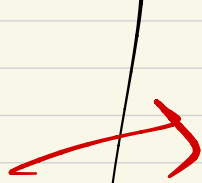
d-5: Cellular - Mfg

1000u/hr

800u/h



pdm



500u/h

① Accumul'n of WIP
Inventory ✓

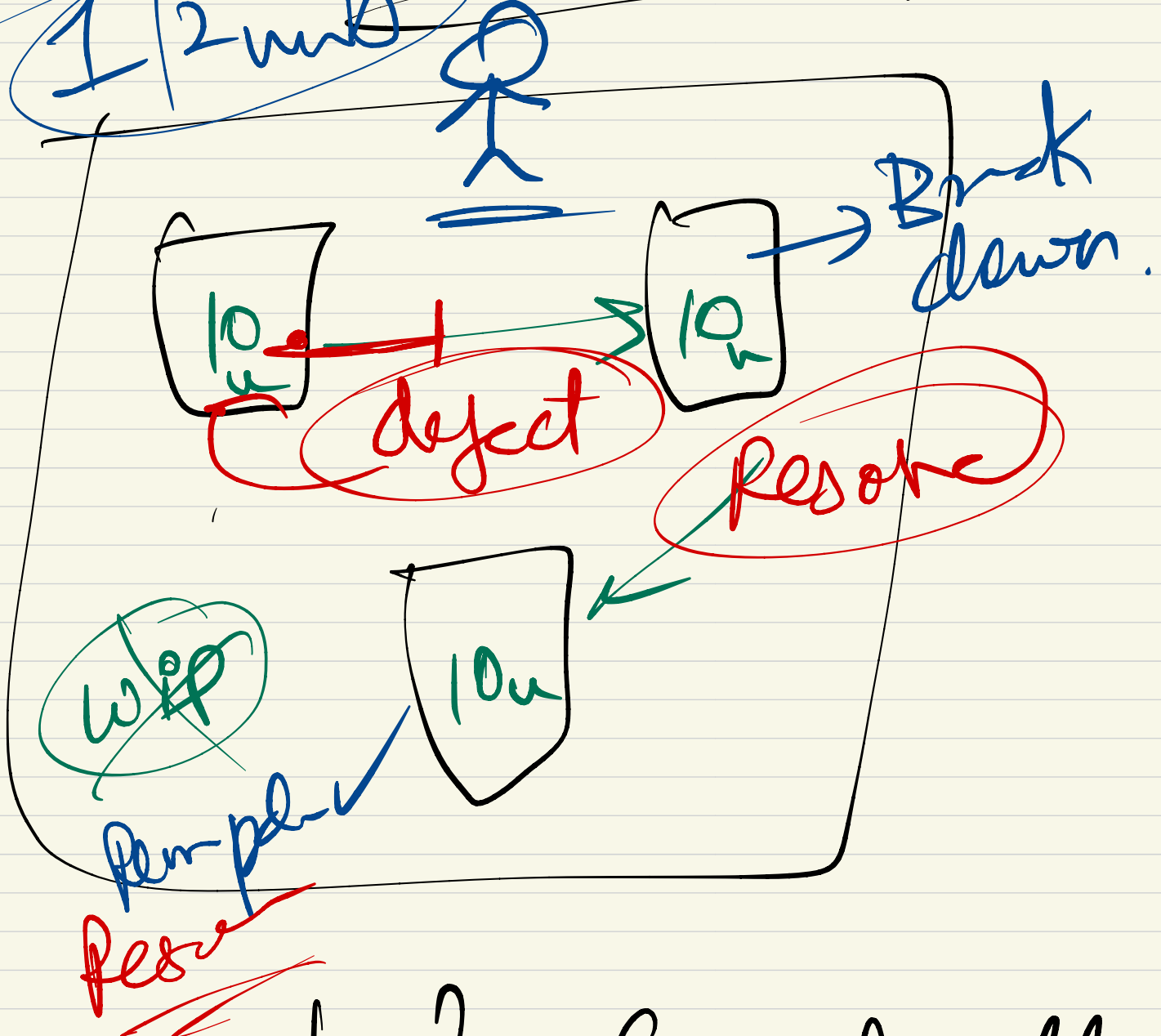
② Full pdn gets
affected.

③ Full dyect is
to be Revisited

↓
Remove

Calculator Mfg

1/2 unit



U shaped cell

Smaller mch. / + One person.

2-5

CM

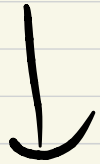
Workst'n / Machines
arranged in U-shape

Facilitate
Small lots + Continuous
flow of
product

- Quick movement
- Waste min
- Reduce Setup time
- zero wip
- Quality part 2

Process Innovation

Product Quality



Delivery Timely



Support Service

BPR

(Business Process
Reengineering)

- Fundamental
Rethinking
- Radical Redesign
- Dramatic Imp.
- Process Imp.

4 Stages of BPR

• Process Identification
↓

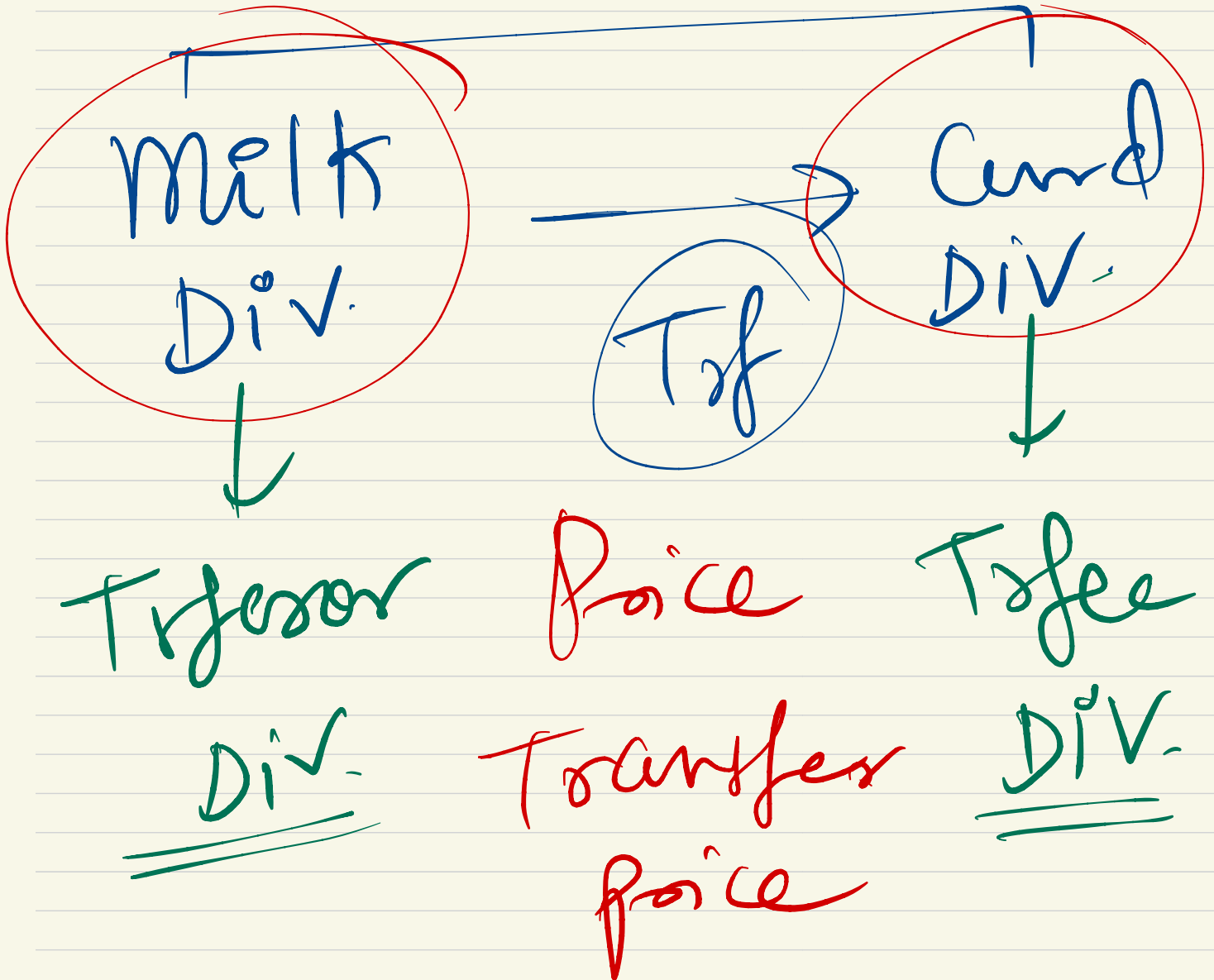
• Process Redesign
↓

• Process Reassemble
↓

• Process Rationalise

Transfer Pricing

Amul



Basic
TP
3 bits
formula

TP with
df
3 bits
formula

25000 u

18000 u

7000 u

dd' Dept A

Spare

Fully Spare

5000 u

Min TP

: 20

(T for ex)

⊖ 2

TUC - VSC

Max TP

(T for ex)

(MP - VSC) 30

⊖ 2

(Subs - Alth) 32-5
cost

full Spare Capacity

Min TP
(Transfer)
@

$(VC - VSC)$

External
Buy in price

or

(Net Mgmt Revenue)

Max TP
(T_{fee})
@

(Subst Cost - Act'n Cost)

@

$(MP - VSC)$
(Lower of above)