

# What Is a Flowchart?

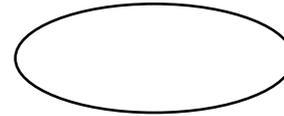
A diagram that uses graphic symbols to depict the nature and flow of the steps in a process.

# Benefits of Using Flowcharts

- Promote process understanding
- Provide tool for training
- Identify problem areas and improvement opportunities
- Depict customer-supplier relationships

# Symbols Used in Flowcharts

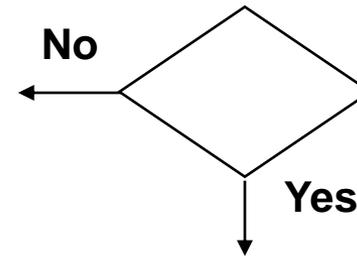
**Start / End**



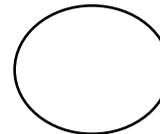
**Process Step**



**Decision**



**Connector**

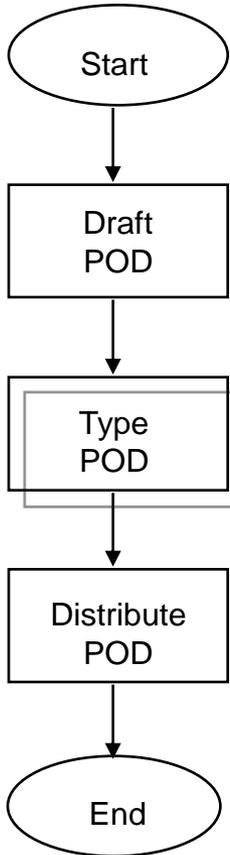


**Measurement**

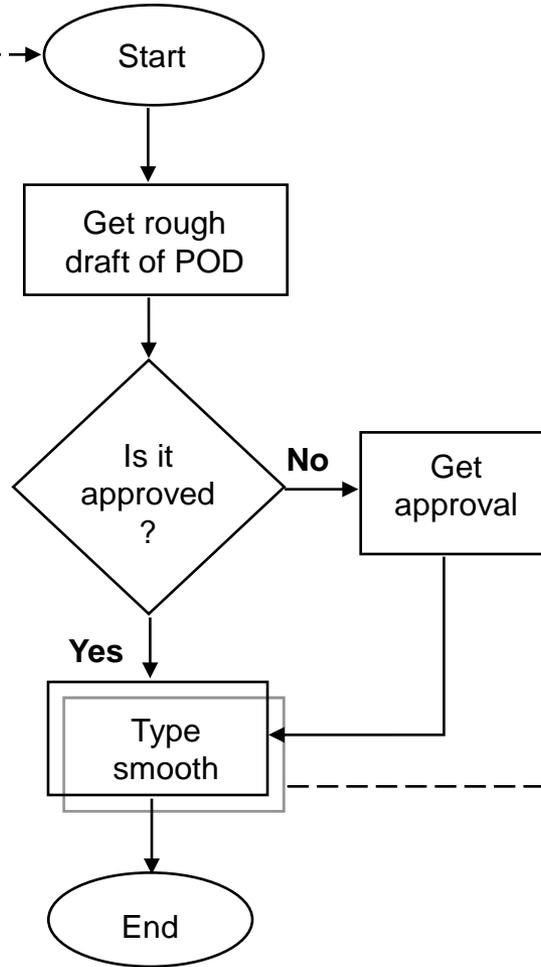


# Levels of Flowcharts

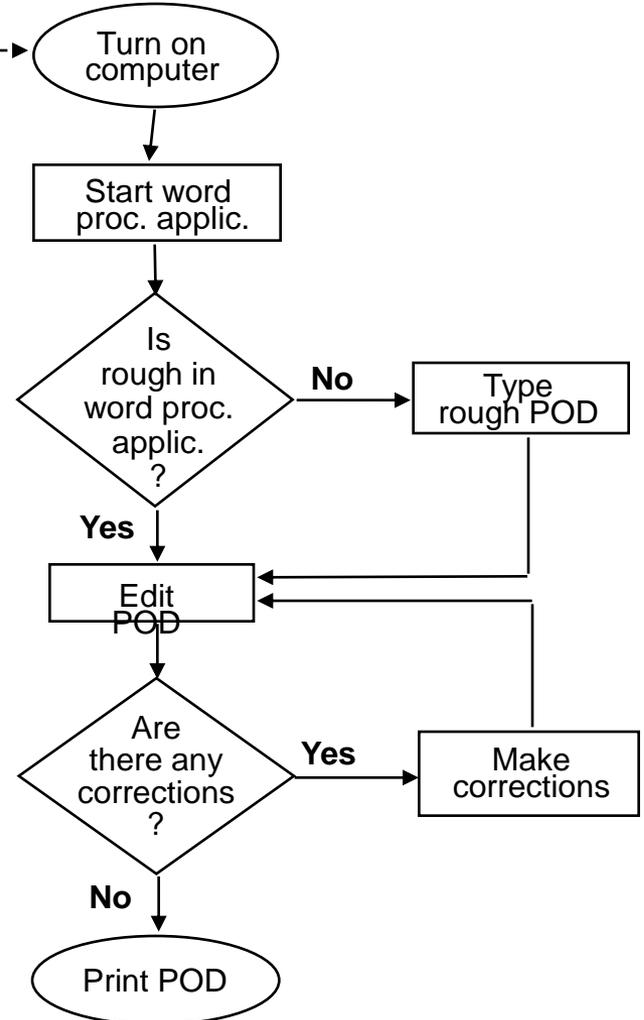
## MACRO



## MINI



## MICRO

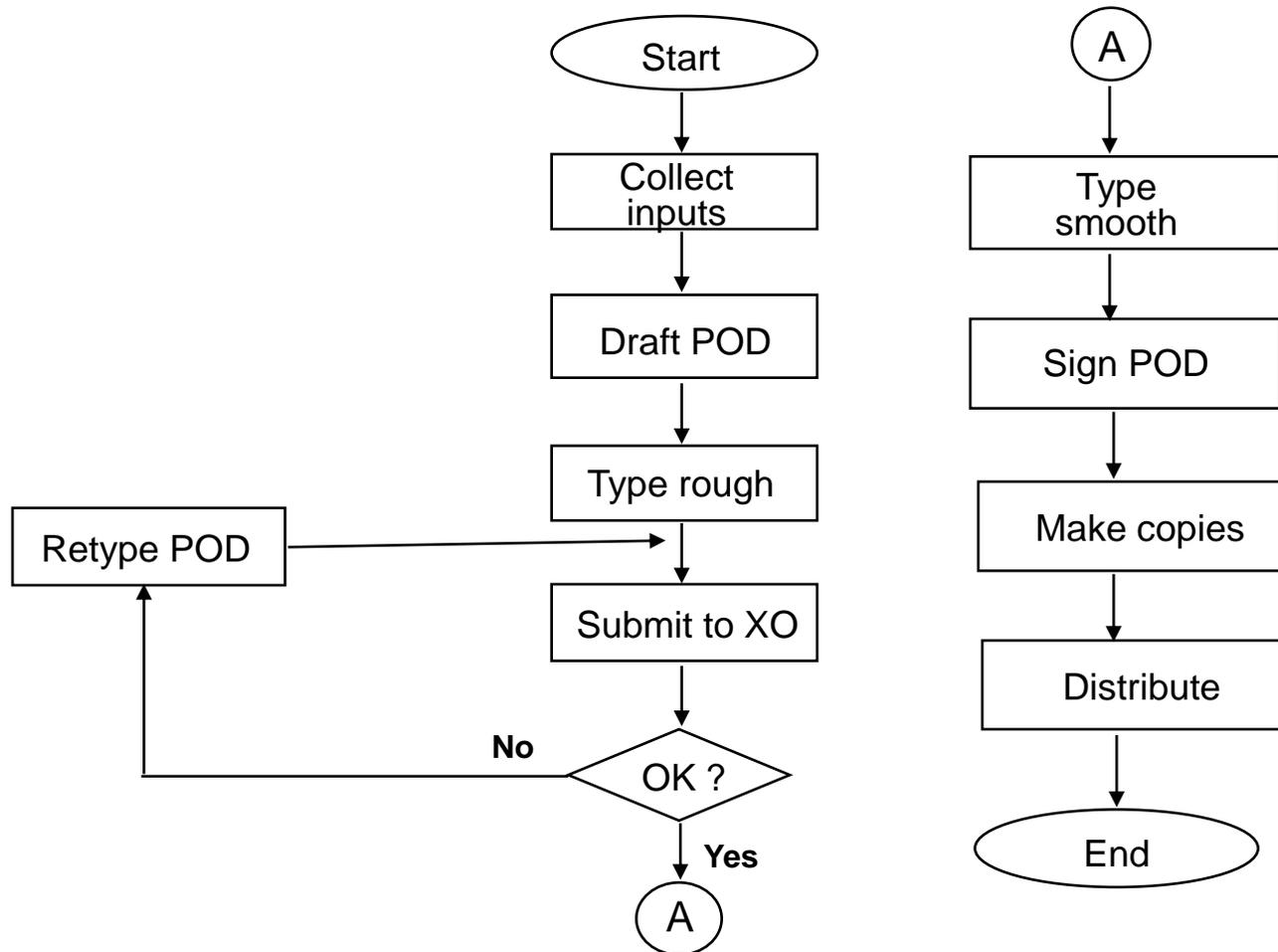


# Keys to Success

- Start with the big picture
- Observe the current process
- Record process steps
- Arrange the sequence of steps
- Draw the Flowchart

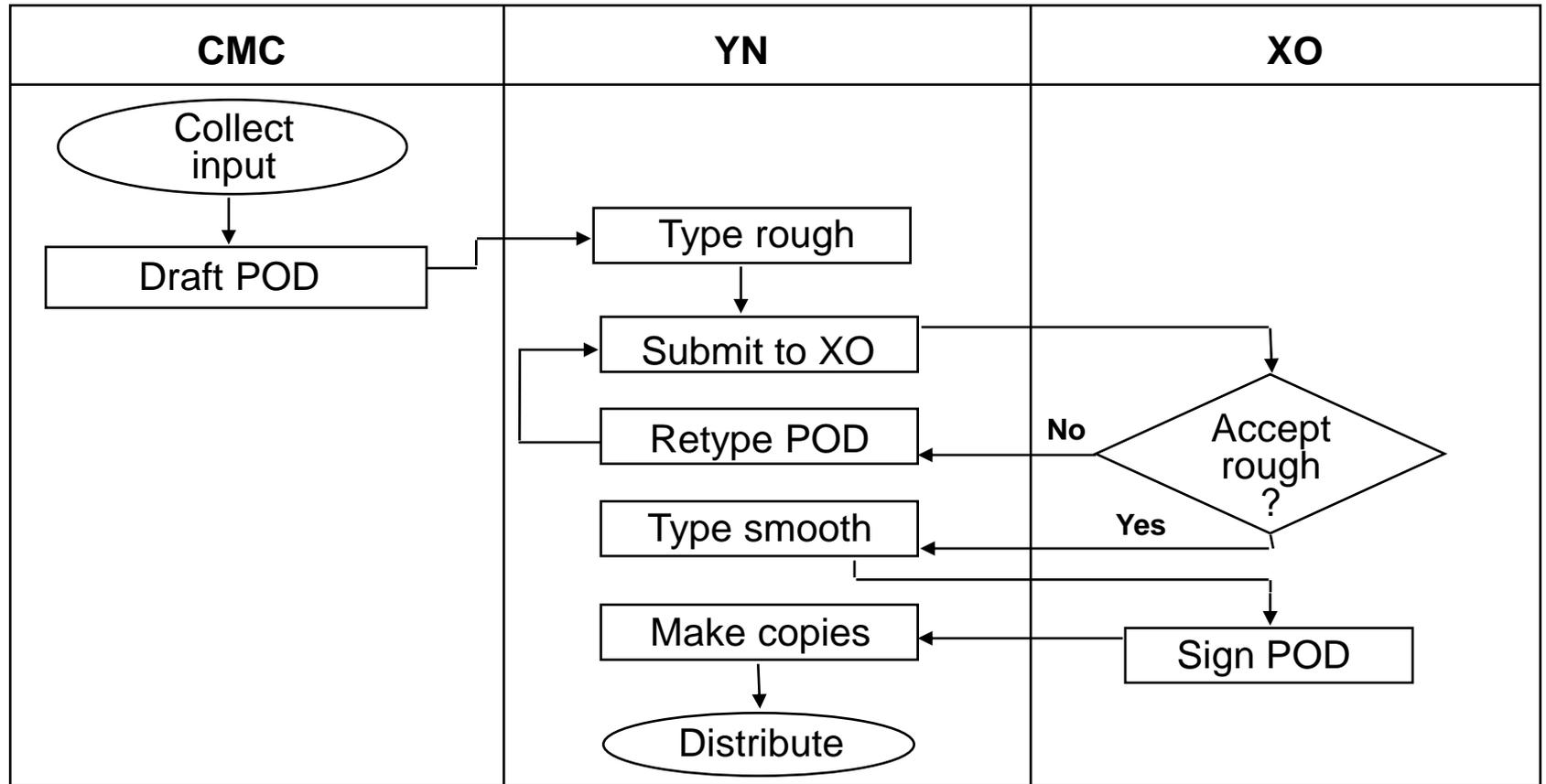
# Linear Flowchart Example

## Producing the POD



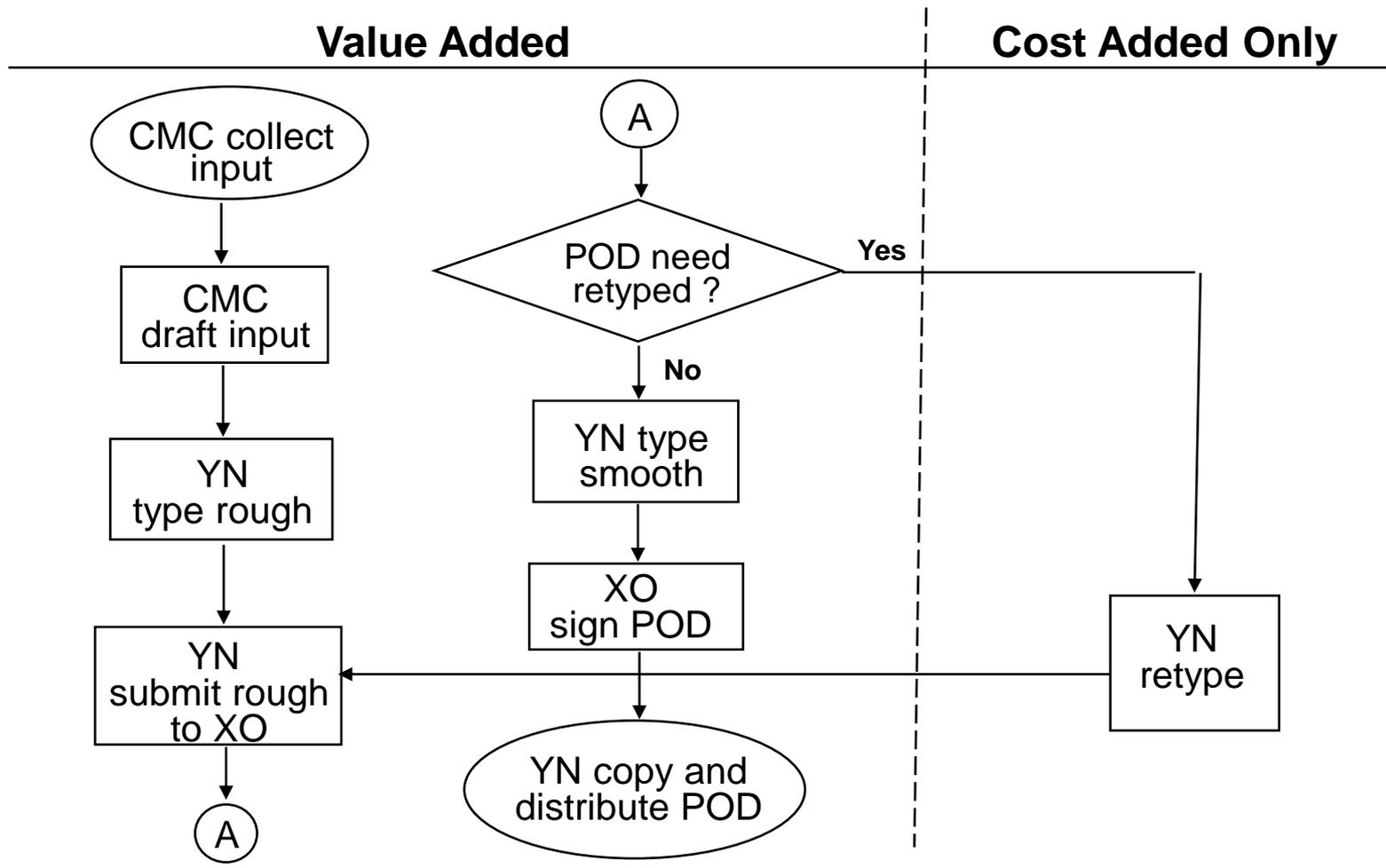
# Deployment Flowchart Example

## Producing the POD

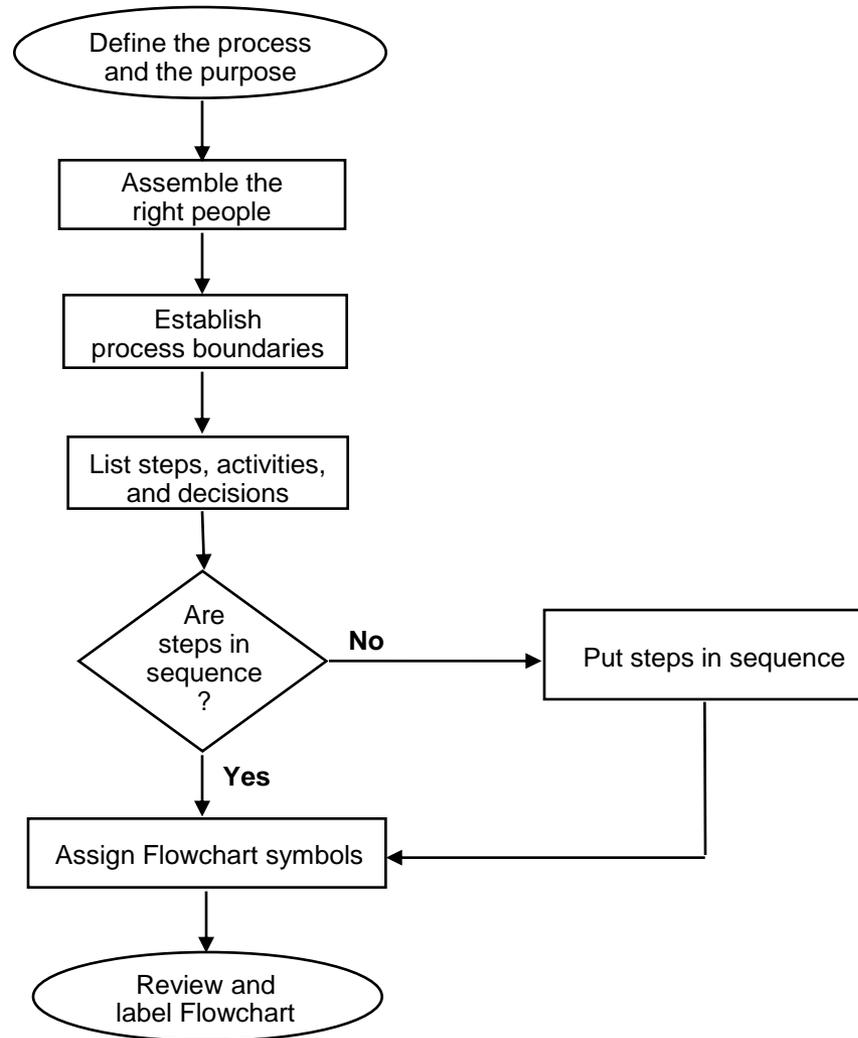


# Opportunity Flowchart Example

## Producing the POD

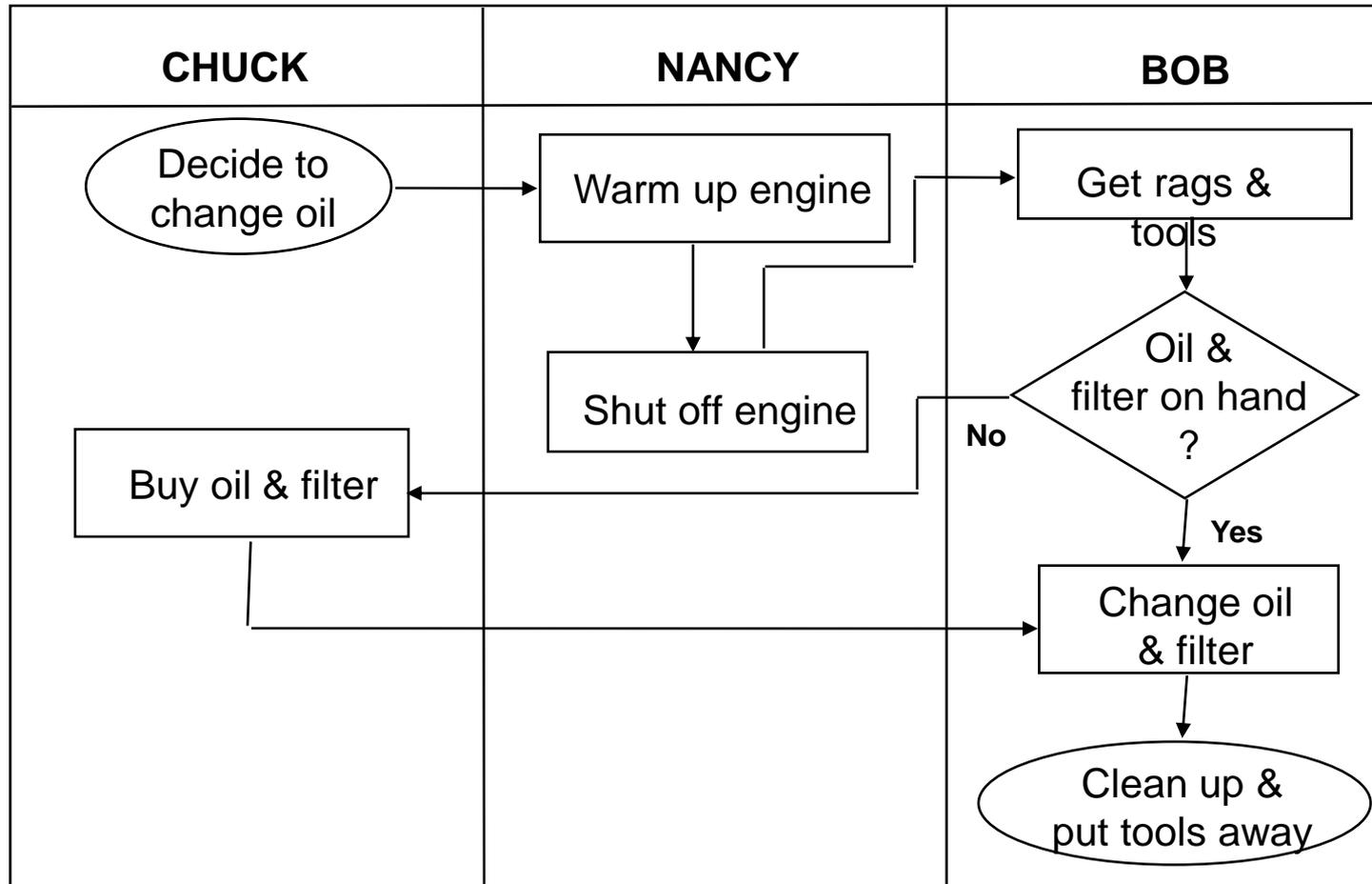


# Constructing a Linear Flowchart



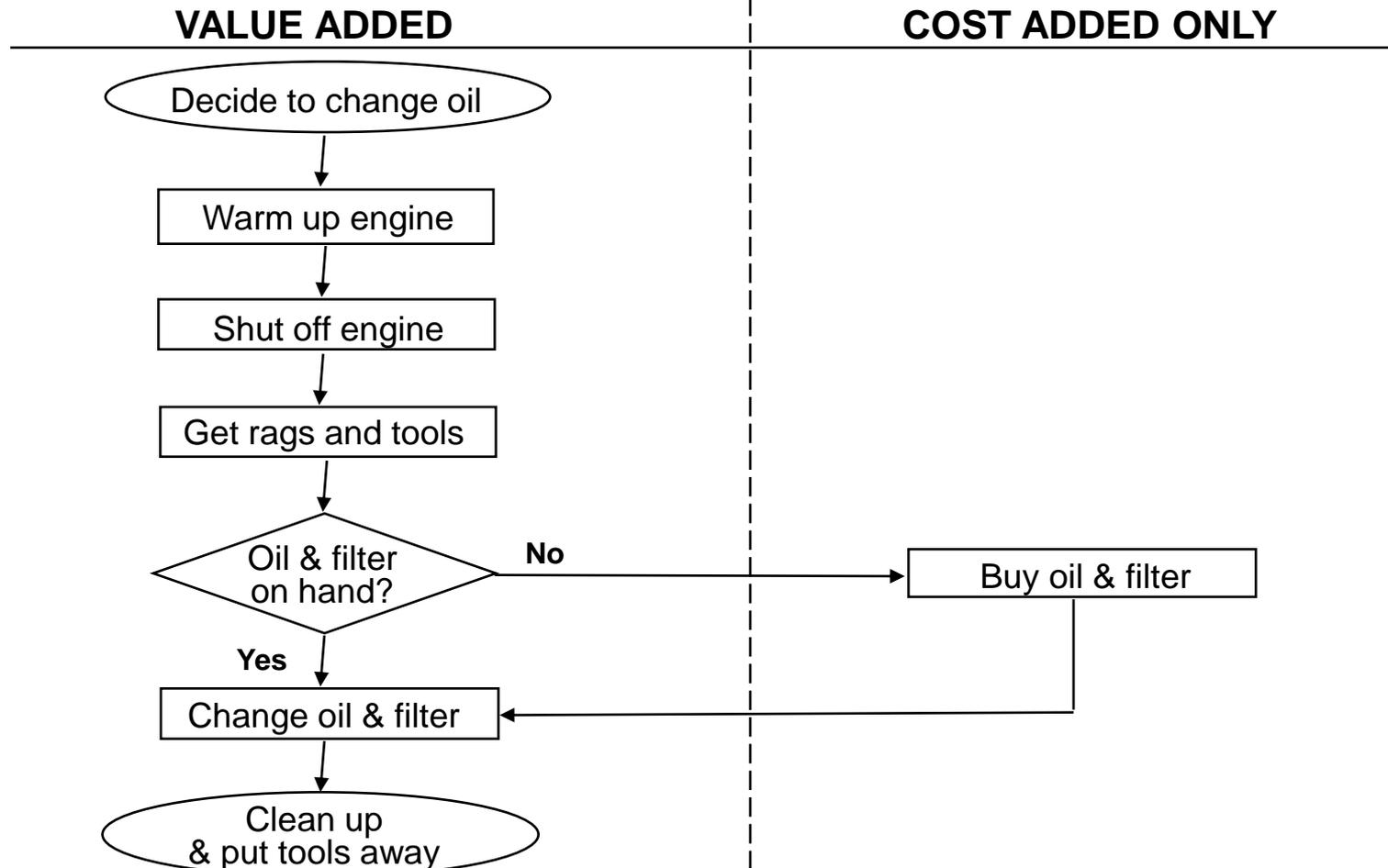
# Constructing a Deployment Flowchart

## Changing Oil



# Constructing an Opportunity Flowchart

## Changing Oil



# Interpreting Your Flowchart

- Determine who is involved
- Form theories about root causes
- Identify ways to simplify and refine
- Determine how to implement changes
- Locate cost-added-only steps
- Provide training

# Interpretation Steps

**Step 1 - Examine each process step**

*Bottlenecks? Weak links? Poorly defined steps? Cost-added-only steps?*

**Step 2 - Examine each decision symbol**

*Can this step be eliminated?*

**Step 3 - Examine each rework loop**

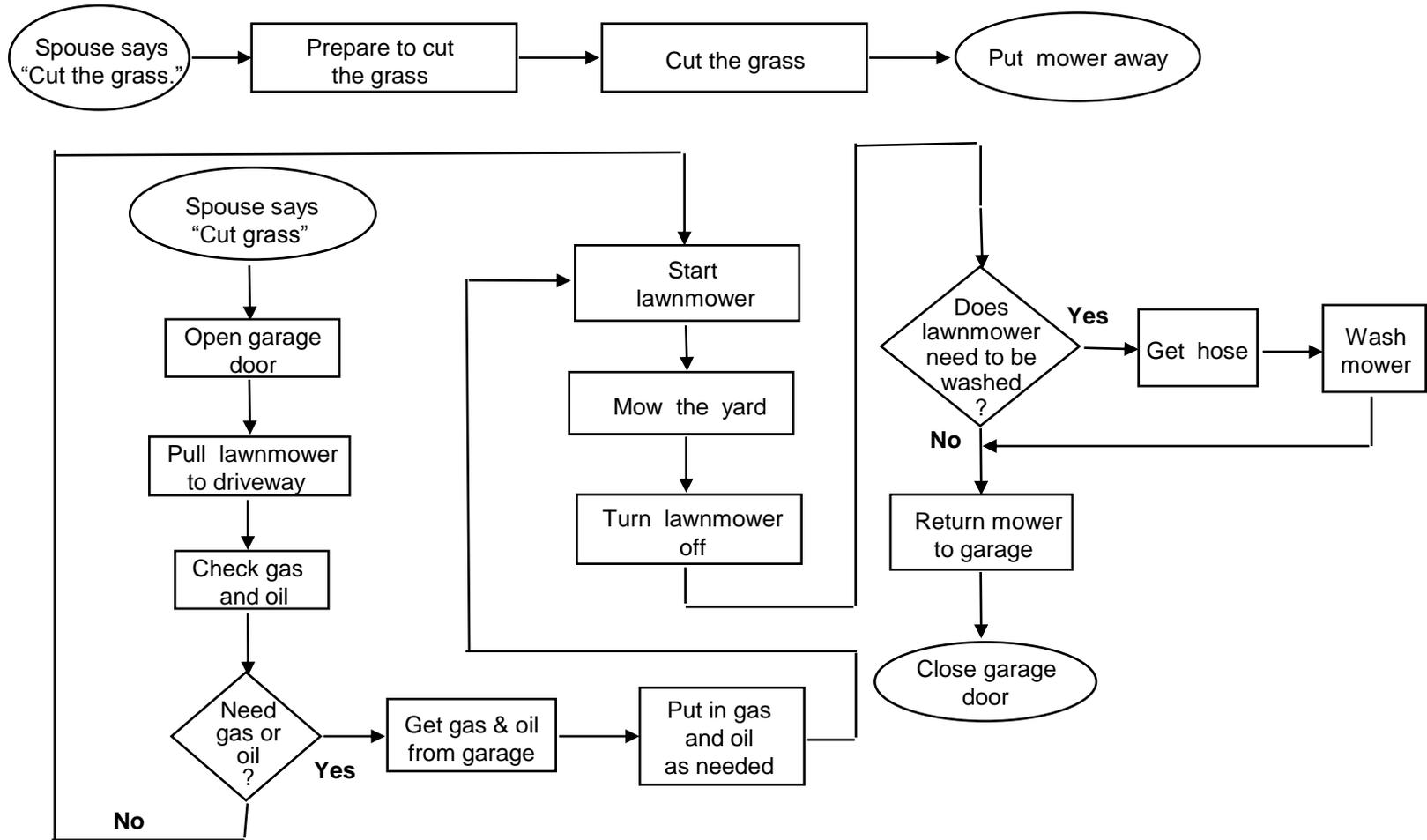
*Can it be shortened or eliminated?*

**Step 4 - Examine each activity symbol**

*Does the step add value for the end-user?*

# EXERCISE 1

## Flowchart for Cut Grass Process



# EXERCISE 3

## Fire Drill Preparation Flowchart

