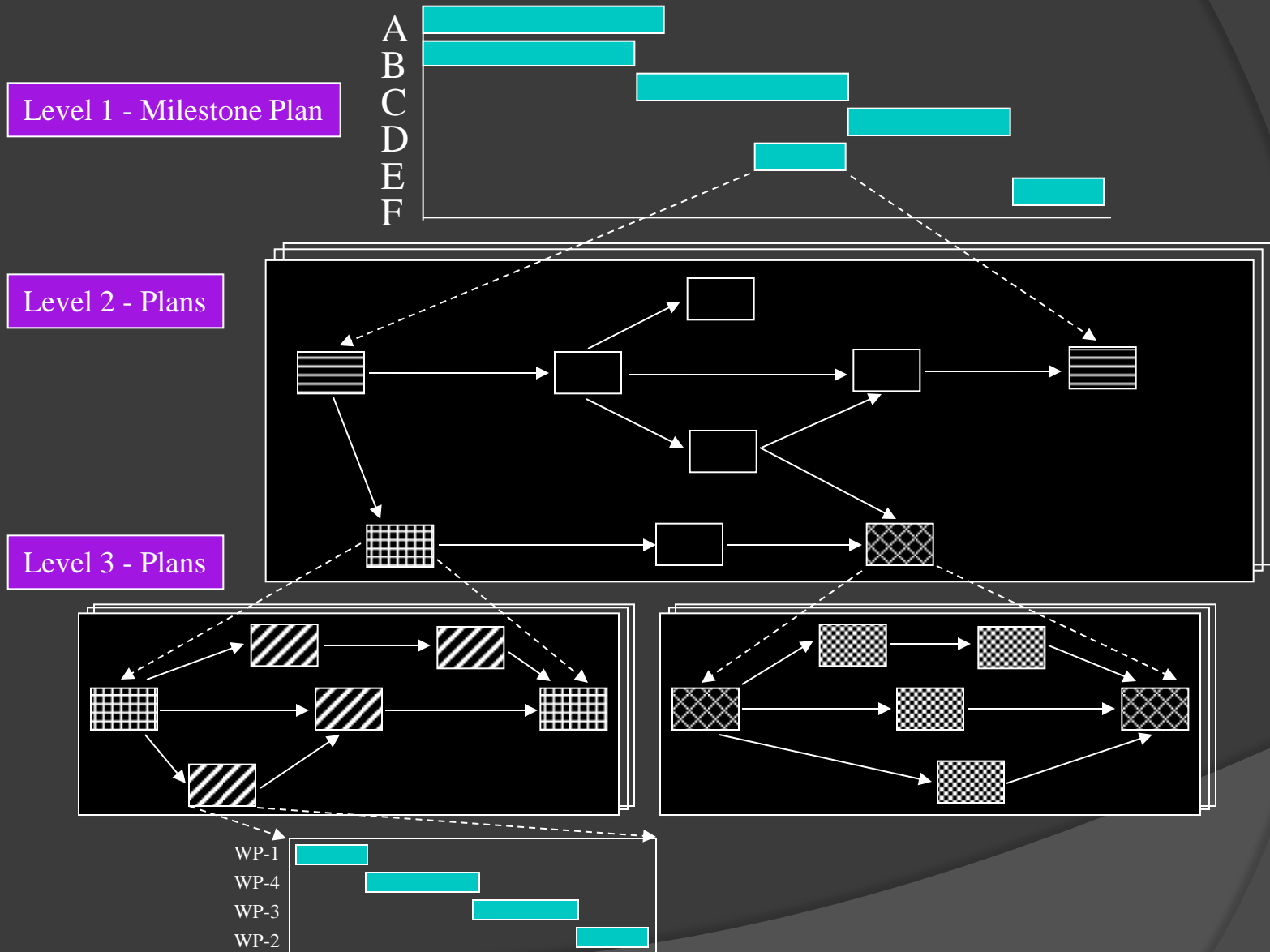


JARINGAN KERJA PROYEK

Project Network

- Tool used for planning, scheduling, and monitoring project progress
- Developed from WBS
- Graphic flowchart of the project job plan
- Depicts the project activities, the interdependencies of activities that must be completed, start time and finish of activities and critical path

Rollup of Network Plans



Constructing a Project Network

● Two Approaches:

- Activity on Node
- Activity on Arch

● Basic rules:

- Network flows typically from the left to right
- An activity cannot begin until all preceding connected activities have been completed
- Arrows on network indicate precedence and flow. Arrows can cross over each other
- Each activity should have a unique identification number
- An activity identification number must be larger than that of activities that precede it
- Looping is not allowed
- Conditional statements is not allowed
- Experience suggest that when there are multiple starts, a common start node can be used to indicate a clear project beginning on the network. Similarly, a single project end node can be used to indicate a clear ending.

Activity on Arch



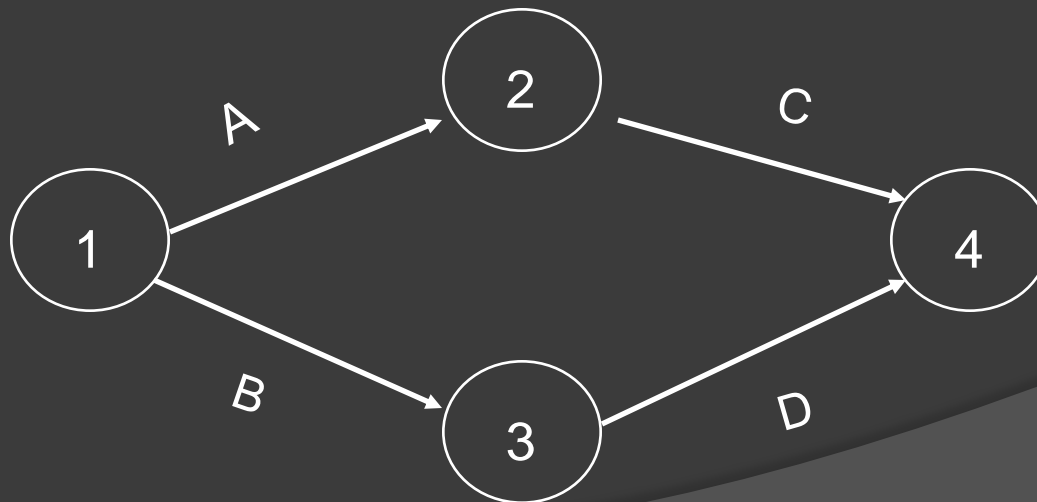
Menggambarkan
kejadian/event



Menggambarkan Aktivitas

Contoh 1

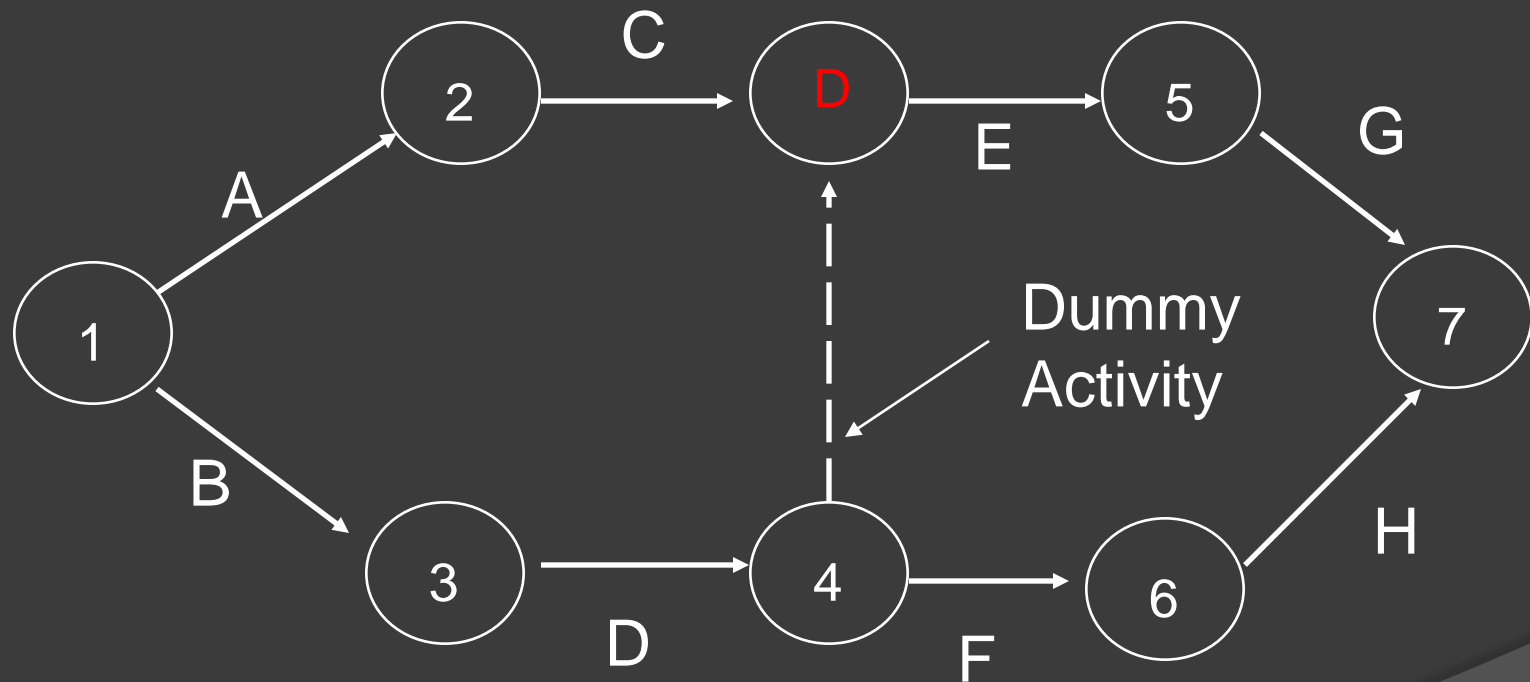
Aktivitas	Aktivitas yang Mendahului
A	-
B	-
C	A
D	B



Contoh 2

Aktivitas	Aktivitas yang mendahului	Aktivitas	Aktivitas yang mendahului
A	-	E	C, D
B	-	F	D
C	A	G	E
D	B	H	F

NETWORK



ANALISA LINTASAN KRITIS

Tujuannya adalah menentukan :

- ⦿ ES : Earliest activity start time
- ⦿ LS : Latest activity start time
- ⦿ EF : Earliest activity finish time
- ⦿ LF : Latest activity finish time
- ⦿ S : Activity slack time (LS - ES) atau (LF - EF)

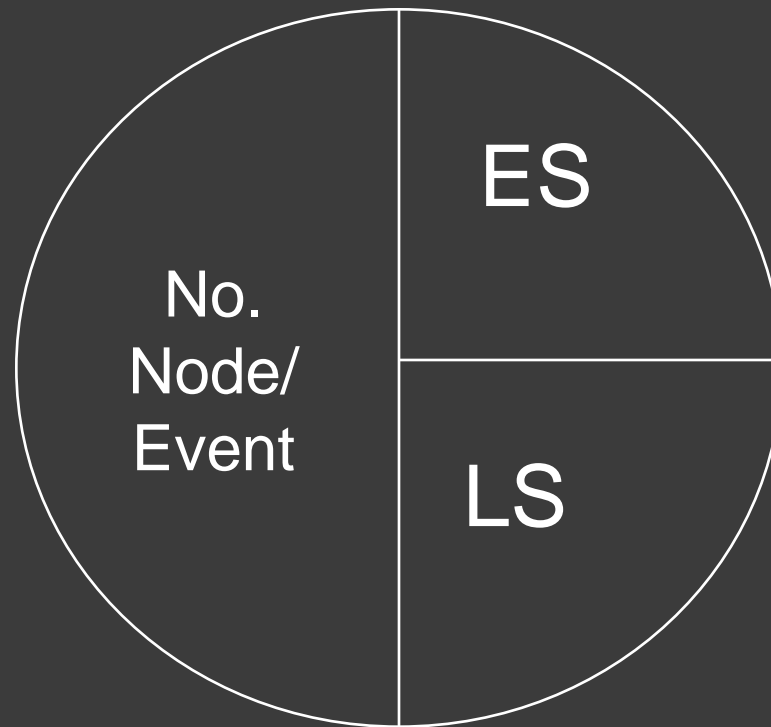
$$EF = ES + t$$

$$LF = LS + t$$

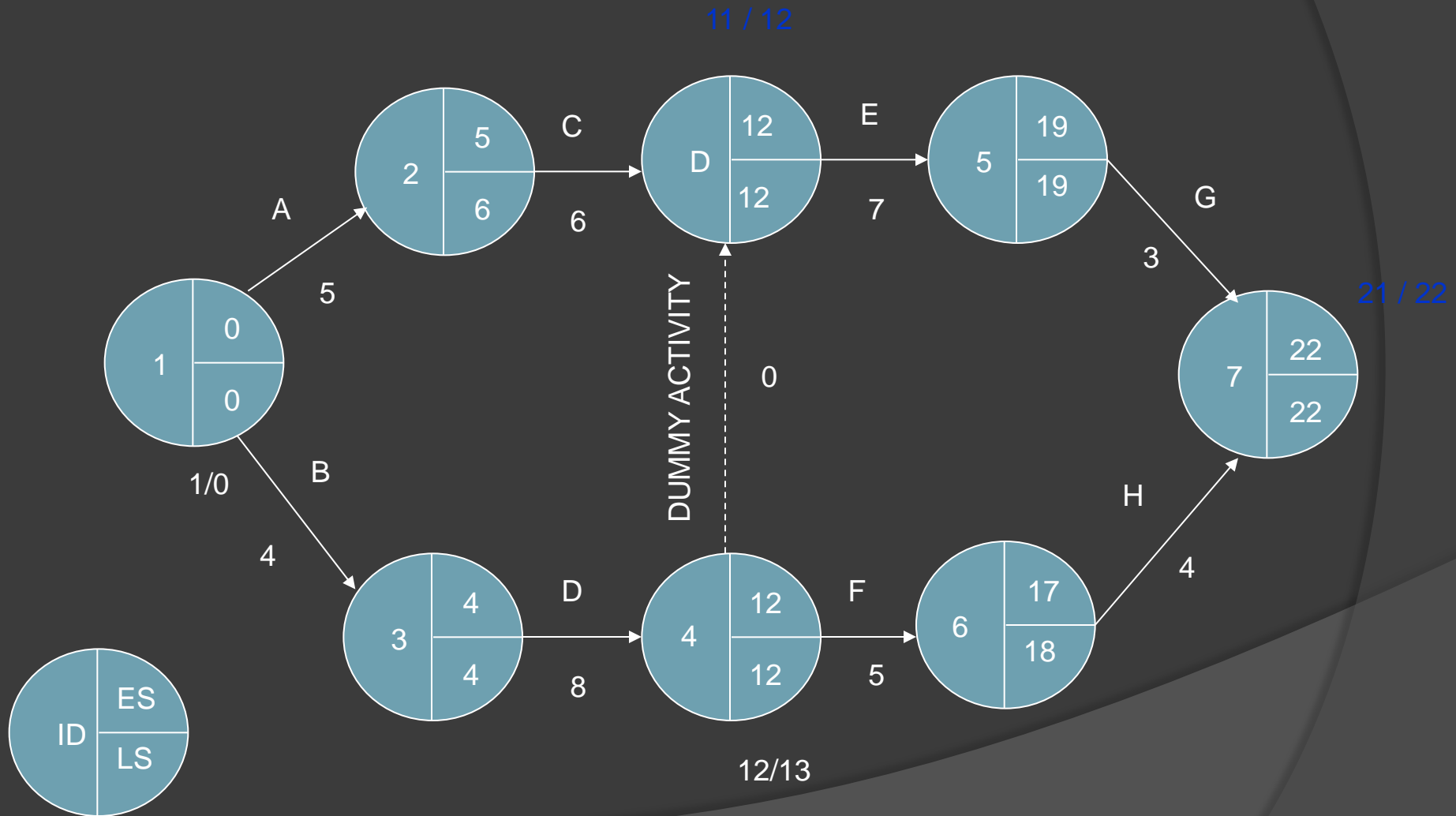
$$S = LS - ES$$

atau

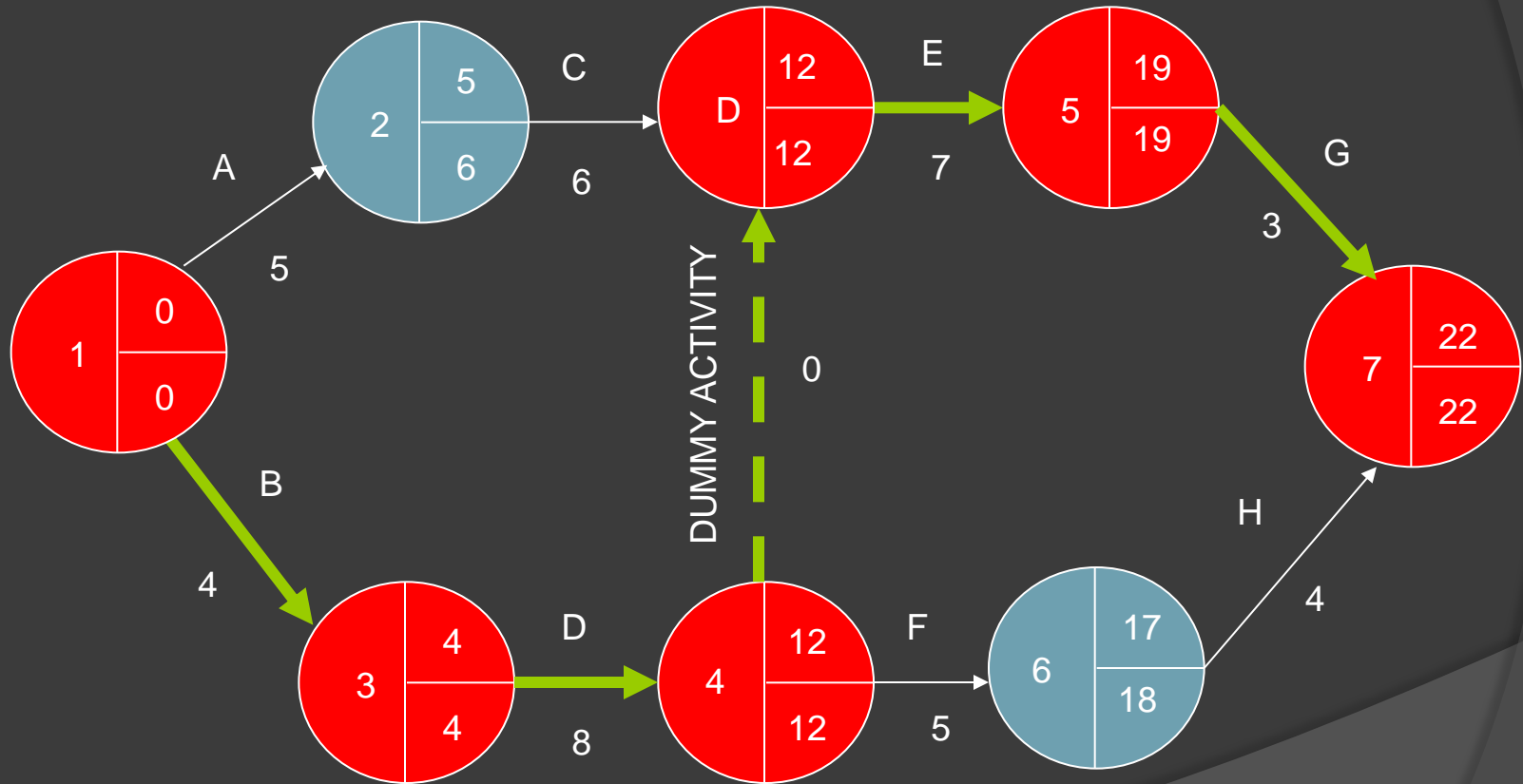
$$S = LF - EF$$



Perhitungan Maju & Mundur



Lintasan Kritis

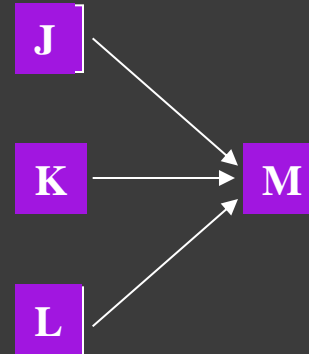


Activity-on-Arrow Network Fundamentals



A is preceded by nothing
B is preceded by A
C is preceded by B

(A)

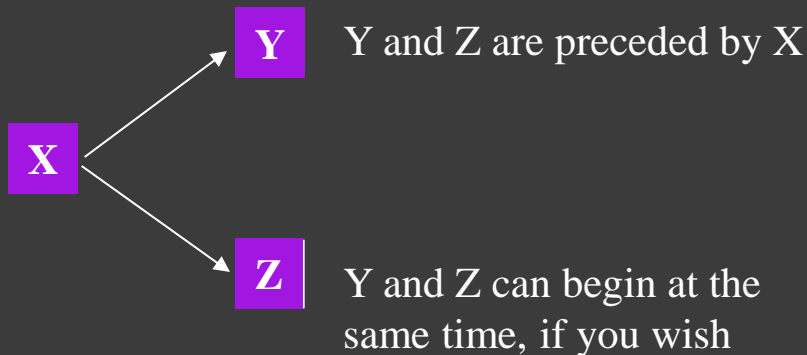


J, K, & L can all begin at the same time, if you wish (they need not occur simultaneously)

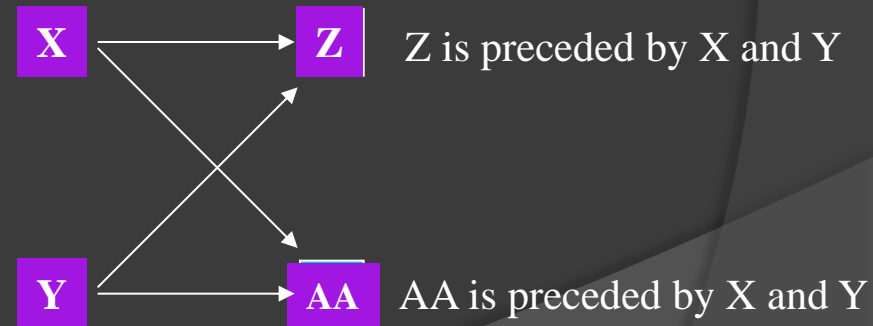
but

All (J, K, L) must be completed before M can begin

(C)



(B)



(D)

Example

Activity	Description	Preceding Activity	Activity Time
A	Application approval	None	5
B	Construction plan	A	15
C	Traffic study	A	10
D	Service availabiality check	A	5
E	Staff report	B, C	15
F	Commision approval	B, C, D	10
G	Wait for construction	F	170
H	Occupancy	E, G	35

Simbol

ES	ID	EF
SL	Description	
LS	Dur	LF

Activity-on-Arrow Network Fundamentals

