# FORMULAS TO REMEMBER

## EARNED VALUE ANALYSIS

$$CV = EV - AC$$

$$SV = EV - PV$$

$$CPI = EV / AC$$

$$SPI = EV / PV$$

$$EAC = BAC / CPI$$

$$EAC = AC + (BAC - EV)$$

$$EAC = AC + (BAC - EV)/(CPIXSPI)$$

$$EAC = AC + New Cost Estimation$$

$$TCPI = (BAC - EV)/(BAC - AC)$$

$$ETC = EAC - AC$$

$$VAC = BAC - EAC$$

## PROJECT SELECTION METHODS

$$BENEFIT COST RATIO = TOTAL BENEFITS / TOTAL COSTS$$

$$PV = FV / (1 + r)^n$$

$$NET PRESENT VALUE = Total Present Value of Revenue - Total Present Value of Costs$$

## DURATION AND COST ESTIMATING

Expected Activity Duration = $(P + M + O) / 3$ => Triangular Distribution
(or Cost)

Expected Activity Duration = $(P + 4M + O) / 6$ => Beta Distribution
(or Cost)

Standard Deviation = $(P - O) / 6$ => Beta Distribution

## SCHEDULE NETWORK ANALYSIS

TOTAL FLOAT = LATE START - EARLY START
or
TOTAL FLOAT = LATE FINISH - EARLY FINISH

## COMMUNICATION CHANNELS

Number of Communication Channels $= n \times (n - 1) / 2$

## RISK ANALYSIS

EMV = Probability x Impact

Expected Total Impact = Sum of the EMV values

## PROCUREMENT MANAGEMENT

$$Point of Total Assumption = \frac{(Ceiling Price - Targe Price)}{Buyer's Share Ratio} + Target Cost$$