



CCP Exam Preparation Workshop

Terminologies and Key Formulas

Earned Value Management Key Terminologies

- PV: Planned Value
 - BCWS: Budgeted Cost of Work Scheduled (=PV)
- EV: Earned Value
 - BCWP: Budgeted Cost of Work Performed (=EV)
- AC: Actual Cost
 - ACWP: Actual Cost of Work Performed (=AC)
- SV: Schedule Variance
- SPI: Schedule Performance Index
- CV: Cost Variance
- CPI: Cost Performance Index
- TCPI: To-Complete Cost Performance Index
- PC: Percent Complete
- BAC: Budget at Completion
- EAC: Estimate at Completion
- ETC: Estimate to Completion
- VAC: Variance at Completion

Earned Value Management Key Formulas

- $SV = EV - PV$
- $SPI = EV/PV$
- $CV = EV - AC$
- $CPI = EV/AC$
- $TCPI = (BAC - EV)/(BAC - AC)$
- $TCPI = (BAC - EV)/(EAC - AC)$
- $VAC = BAC - EAC$
- $EV = PC \times BAC$



Engineering Economics Key Formulas

$$F = P(1+i)^N$$

$$P = \frac{F}{(1+i)^N}$$

$$(A/F, i, N) = \frac{i}{(1+i)^N - 1}$$

$$(F/A, i, N) = \frac{(1+i)^N - 1}{i}$$

$$(A/P, i, N) = (A/F, i, N)(F/P, i, N) = \frac{i(1+i)^N}{(1+i)^N - 1}$$

$$(P/A, i, N) = (P/F, i, N)(F/A, i, N) = \frac{(1+i)^N - 1}{i(1+i)^N}$$

$$(A/G, i, N) = \frac{1}{i} - \frac{N}{(1+i)^N - 1}$$