# Solve scheduling problems using critical-path analysis.

## Key skills | Free preview

Learning target: Solve scheduling problems using critical-path analysis.

A schedule network encodes precedence rather than merely placing activities in a list. The forward pass finds earliest event times, while the backward pass finds latest times consistent with the project deadline. An activity's total float is latest start minus earliest start. A dummy activity has zero duration and records a dependency without inventing extra work.

## Try the mathematics

Task 1. A takes 4 days and B takes 3; both can start immediately. C takes 2 after A. D takes 5 after both A and B. E takes 3 after C and D. Construct an activity-on-arrow network with a necessary dummy, then give EST, LST and float for A–E.

## Continue with the full worksheet

The complete resource has 2 focused task sets and substantive worked solutions. Use an exercise book or print the A4 worksheet. This preview shows the first task without its full solution.

Find this resource:
https://resources.aspiretopowerlearning.com.au/vce/skills/aspire-internal-gm-u34-o1-aos2-networks-ks-07/

## Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Units 3–4; Outcome 1; Key skills; Networks and decision mathematics; bullet 7; p. 92.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u34-o1-aos2-networks-ks-07. This is an internal identifier, not an official VCAA code.

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