

# ENGG1003 - Monday Week 8

Solving nonlinear algebraic equations  
& computing integrals

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# Lecture overview

- 1 Solving nonlinear algebraic equations pp. 175-176
  - ▶ generic
  - ▶ three problems: flight time, fluid level, breaking spring
- 2 Bisection method §7.7
- 3 Secant method §7.3
  - ▶ Newton–Raphson method
- 4 Computing integrals §6

# 1) Solving nonlinear algebraic equations

- XXX

● XXX

## 2) Bisection method

- XXX

● XXX

### 3) Secant method

- XXX

● XXX



## 4) Computing integrals

- XXX

● XXX

# Lecture summary

- Solving nonlinear algebraic equations
- Bisection method
- Secant method
  - ▶ Newton–Raphson method
- Computing integrals