

## Increasing and decreasing functions

### 4.2.1

Determine intervals on which the function is increasing or decreasing.

(a)  $f(x) = 5 + 2x - 4x^2$

(b)  $f(x) = x^3 - 3x^2 + 9x + 5$

(c)  $f(x) = e^{2x} - e^x$

(d)  $f(x) = 2 \sin x + x$  ,  $0 \leq x \leq 2\pi$