MATH3431 Machine Learning and Neural Networks III

Epiphany term 2023

## Exercise sheet

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## Part I

## Stochastic learning

**Exercise 1.**  $(\star)$ Let  $f: \mathbb{R}^d \to \mathbb{R}$  such that  $f(w) = g(\langle w, x \rangle + y)$  or some  $x \in \mathbb{R}^d$ ,  $y \in \mathbb{R}$ . If g is convex function then f is convex function.