

**Lösningar till tentamen i Matematisk statistik och diskret matematik D2
(MVE055/MSG810).**

Den 18 oktober 2011. These are sketches of the solutions.

1. Lösning:

- a) See course materials
- b) \bar{X}
- c) See course materials
- d) 0

2. Lösning:

- a) $A(x) = \sum_{i=1}^{\infty} a_n x^n$
- b) $A(x) = 2/(1 - 5x)$, $x \in (-0.2, 0.2)$

3. Lösning:

- a) See course materials and z -table for appropriate quantile, $z_{0.01} \approx 2.33$
- b) CI $\approx (-0.73, 12.73)$. The ends of the interval are random and see course material for meaning of confidence intervals.