

Durham University
MATH1541 Statistics
Exercise Sheet 15

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1 Q1

1.1 a) b)

$$H_0 : \mu = 8.0, H_a : \mu \neq 8.0$$

$$p = \frac{8.6-8}{\frac{\sqrt{0.4}}{\sqrt{6}}} = 2.3237$$

$$\alpha = 5\%, \text{ CV} = \pm 1.9600, \text{ thus reject } H_0$$

$$\alpha = 1\%, \text{ CV} = \pm 2.5758, \text{ thus fail to reject } H_0$$

1.2 c)