

**MBA Maths 2009**  
**Quiz 2**

**Question 1**

Evaluate

- (a)  $\text{Log}_7 49$
- (b)  $\log_{10} 0.0001$
- (c)  $\log_3 3^{1/2} + \log_3 3^{3/2}$
- (d)  $\log_{25} 0.2$
- (e)  $\log_4 32 + \log_4 2$
- (f)  $\log_6 \sqrt[4]{72} - \log_6 \sqrt[3]{2}$

**Question 2**

- (a) If an initial investment of 1000 is worth 1250 at the end of 30 months, what was the interest rate
  - i. A monthly compound rate?
  - ii. An annual compound rate?
- (b) If the growth factor for 1 year is 1.15 what is the interest rate expressed as
  - i. An annual compound rate?
  - ii. A quarterly compound rate?
- (c) Referring to part (b) how much will the investment be worth at the end of 18 months?
- (d) If you invest \$1000 at a quarterly compound interest rate of 3% how long will it take for your investment to double%?