Practice worksheet | Financial mathematics

# Comparison rates and choosing between loan models

Name: _____ Date: _____

6 questions | 18 marks

**1.** Offer A has total repayments AUD 12,300 and an upfront fee AUD 200. Offer B has total repayments AUD 12,450 and no fees. Both advance the same amount over the same term. Compare stated total costs. [3 marks]

**2.** A fee of AUD 300 is financed into an AUD 12,000 loan. What principal should be used in the repayment formula? [3 marks]

**3.** A loan advertises 5% interest with a comparison rate of 6%. Does this prove every borrower pays exactly 6% interest? Explain. [3 marks]

**4.** A fee-free loan advances AUD 2,000 and requires 12 monthly payments of AUD 175. Find the monthly rate in this cash-flow model and its effective annual rate. [3 marks]

**5.** For an educational model, a loan’s net advance is AUD 5,000 after fees. There are 10 equal annual payments of AUD 700. Write the equation defining its annual cost rate $i$. [3 marks]

**6.** A borrower plans to repay after one year, but an advertised comparison rate assumes five years. State two costs to check before choosing between offers. [3 marks]