Practice worksheet | Financial mathematics

Superannuation models

Name: _____ Date: _____

6 questions | 17 marks

1. A model has an annual gross contribution of AUD 6,400 and a stated contribution deduction of 12%. Find the net contribution. [3 marks]

2. A fund starts at AUD 8,000, earns 5%, then receives a net AUD 2,200 contribution and pays a fixed AUD 90 fee at year end. Find its new balance. [3 marks]

3. A constant net contribution is AUD 2,500 at each year end. At 4%, starting from zero, find the balance after 12 years. [3 marks]

4. A balance of AUD 10,000 earns 5% in year 1 and −3% in year 2. Add AUD 2,000 at each year end. Find the final balance. [3 marks]

5. Compare fixed year-end fees of AUD 80 and AUD 150 over 10 years at 4%, with all other cash flows identical. Find the difference in final balances. [3 marks]

6. Explain why a projected balance based on 6% every year is not a guaranteed result. [2 marks]