

General Mathematics

Unit 2 2018

Finance

Practice SAC

Introduction

- The SAC will run over 1 hour (60 minutes) in week 5-6 of term 3.
- There are a total of 16 questions and 50 marks available in the SAC, but only 10 questions and 22 marks in this practice SAC.
- The first 5 minutes of the SAC session will be reading time.
- During this time your bound reference will be checked to make sure it complies with all VCAA rules. For this SAC you may not use your textbook as a bound reference.
- Questions worth more than 1 mark require some working out to be shown to earn full marks in the SAC.

Required Materials

- The SAC question booklet.
- Your bound reference, meeting all relevant VCAA guidelines.
- Your CAS Calculator and a scientific calculator.
- Pens, pencils, a ruler, sharpener, eraser, highlighters.

Restricted Materials

- Students are not permitted to bring phones, smart watches, headphones, other electronic devices, correction tape, white out or material not securely bound in the reference book into the SAC.

1. The price of an airline flight to Fiji is reduced in a sale from \$235 to \$162. What percentage discount which has been applied?

(2 marks)

2. Benji opens a saving account with an initial deposit of \$6850. He earns simple interest on his initial deposit at the rate of 3.65% per year. How much interest will he earn after 7 years?

(2 marks)

3. Steve invested \$48910 at 2.15% compounded annually, what is the total value of this investment after 6 years?

(2 marks)

4. Tegan earned \$185.25 in simple interest when she invested \$180000 for 3 months. What rate of interest (p.a) did she earn? (correct to one decimal place)

(2 marks)

5. A sculpture by a well known artist is bought for \$73 000. If the price of the sculpture increases with inflation and the average inflation rate is 4.95% p.a/, what will be the price of the sculpture in 24 years?

(2 marks)

6. Lydia wins \$250 000 and keeps it hidden under her bed. What is the purchasing power of her winnings in 50 years time if the average inflation rate is 2.15 % p.a?

(2 marks)

7. Robbie borrows \$7,000 to be repaid in equal payments over 4 years. Interest is charged at the rate of 14.8% per annum, compounding monthly.

- a. What is the monthly payment amount, correct to the nearest cent?

- b. What is the total cost of repaying this loan?

(2+2= 4 marks)

Use the table below to answer the question below.

Taxable income	Tax on this income
\$18,201 – \$37,000	19c for each \$1 over \$18,200
\$37,001 – \$90,000	\$3,572 plus 32.5c for each \$1 over \$37,000
\$90,001 – \$180,000	\$20,797 plus 37c for each \$1 over \$90,000
\$180,001 and over	\$54,097 plus 45c for each \$1 over \$180,000

8. Heath earns \$520.20 per week before tax working as a builder.

(2+2+2=6 marks)

- a. What is Heath's yearly income?

- b. How much tax is Heath required to pay on this yearly income? (ignore any deductions at this point)

- c. How much will Heath take home in his pay each fortnight after tax?