



JOHN EDMONDSON HIGH SCHOOL

Assessment Notification

Faculty: Mathematics Course: Mathematics Intermediate (Core + Some Paths) Year: 9

Assessment Task: 1

Assessment Weighting: 20% Due: Term 1, Week 9 Date: Thursday 28th March 2024

Task Type: Hand in Task In Class Task Practical Task

Outcomes assessed (NESA)
MA5-FIN-C-01, MAO-WM-01. MA5-FIN-C-02, MAO-WM-01
Please Note: further information about these outcome codes can be found on the NESA Website
Task Description/Overview
This in class written examination will consist of short answer questions. No reference material is allowed during the examination
Time allowed: 45 Minutes + 2 minutes reading time Equipment Required: Black Pen(s) and a NESA approved calculator
Detailed Assessment Task Description
Questions may require students to:
Financial Mathematics A
Solve problems involving earning money
<ul style="list-style-type: none">• Solve problems involving wages given an hourly rate of pay including penalty rates for overtime, weekends and public holidays• Calculate earnings from non-wage sources exploring commission, piece work and royalties• Calculate weekly, fortnightly, monthly and yearly earnings assuming 1 year = 52 weeks• Calculate leave loading by finding a percentage of eligible normal pay• Investigate sources of published tables or online calculators and use these to calculate the weekly, fortnightly or monthly tax to be deducted from a worker's pay under the Australian Pay-As-You-Go (PAYG) taxation system• Determine annual taxable income by exploring allowable deductions and current tax rates• Calculate net earnings after deductions and taxation
Solve problems involving simple interest
<ul style="list-style-type: none">• Establish and use the formula $I = Prn$ to find simple interest where I = simple interest, P = principal, r = interest rate per time period and n = number of time periods• Apply the simple interest formula to solve problems related to investing money at simple interest rates, both algebraically and graphically
Solve problems involving spending money
<ul style="list-style-type: none">• Calculate the cost of buying items on terms, by paying an initial deposit and making regular repayments• Examine payment options involving <i>buy now, pay later</i> and investigate the costs associated with these schemes for purchasing goods• Examine the principles behind short-term loans involving small dollar amounts and compare borrowing costs associated with using these products
Financial Mathematics B

Solve problems involving compound interest and depreciation

- Examine compound interest for up to 3 time periods using repetition of the formula for simple interest
- Associate the calculation of the total value of a compound interest investment with repeated multiplication, using digital tools
- Establish and use the formula $FV = PV(1 + r)^n$ to find compound interest where FV = future value of the investment, PV = present value of the investment, r = interest rate per time period and n = number of time periods
- Solve problems involving compound interest
- Compare simple interest with compound interest in practical situations
- Use the compound interest formula to establish the depreciation formula $S = V_0(1 - r)^n$ where S = salvage value, V_0 = initial value of the asset, r = depreciation rate per time period and n = number of periods
- Solve problems involving the depreciation of an asset

Test/Examination Structure	
Section Description	Marks Available
Financial Mathematics A and B	50
Total Marks for this task	50

Satisfactory completion of courses

A course has been satisfactorily completed when the student has:

- Followed the course developed/endorsed by the NSW Educational Standards Authority (NESA).
- Applied himself/herself with diligence and sustained effort to the set tasks and experiences provided in the course.
- Achieved some or all the course outcomes.