

Homework

1. The fees of a 3-year university course is \$48 000.
(a) Anthony's parents have agreed to pay 20% of his course fees. How much is the remaining course fees?
(b) Anthony decides to take up a study loan to pay off the remaining course fees. The following shows the different packages that he could take:

Package I: Compound Interest of 4.5% per annum, Repayment period of 5 years

Package II: Simple Interest of 5% per annum, Repayment period of 6 years

- i. Find the total amount that he has to pay if he takes up Package I
ii. Find the total amount that he has to pay if he takes up Package II
iii. Which package will Anthony take up if he can only afford to pay a maximum \$700 per month?

$$4(a) \text{ Remaining course fee} = 0.8 \times \$48000 \\ = \underline{\underline{\$38400}}$$

(b)(i) Package I :

$$\text{Total amount} = \$38400 (1.045)^5 \\ = \underline{\underline{\$47853.39}}$$

(b)(ii) Package II :

$$\text{Total amount} = \frac{130}{100} \times \$38400 \\ = \underline{\underline{\$49920}}$$

$$(ii) \text{ Package I per month} : \$47853.39 \div 60 \\ = \$797.56$$

$$\text{Package II per month} : \$49920 \div 72 \\ = \$693.33$$

\therefore Package II

6