POLITEKNIK KUCHING SARAWAK

Mathematics, Science and Computer Department

INTENSIVE MATHEMATICS (PBM1035)
Session December 2017
SELF-EXERCISE 10

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working. You may use a non-programmable scientific calculator.
- For Question 4 and Question 5, answers are given for you to check.

1. Factorize the following quadratic equations. Then, solve the quadratic equations.
   (a) $x^2 - 16x + 63$
   (b) $2b^2 + 17b + 21$
   (c) $7x^2 - 31x - 20$
   (d) $9r^2 - 9r - 10$
   (e) $7x^2 - 45x - 28$

2. Find the simple interest and total ending amount for each of the following.
   (a) P=RM1800, R=5%, T=3 years
   (b) P=RM5660, R=11%, T=9 months

3. Find the total value of the investment after the time given.
   (a) RM1500 at 7% compounded annually for 3 years.
   (b) RM1240 at 8% compounded annually for 2 years.

4. You wish to receive an annuity of RM800 each year for 5 years. The annual interest rate is 10%. What is the present value of the annuity? [Answer: RM3032.63]

5. You wish to receive an annuity of RM300 a month for 6 years. The annual interest rate is 0.9%. What is the present value of the annuity? [Answer: RM15,846.35]