



## Mathematics – Performance Task

### General Information

The duration of this exam is 2 hours.

This task has four part: each part has 1 question.



### The motorcycle

Mrs. Omar is thinking of surprising her son with a motorcycle for his birthday. He will be sixteen in 10 months. She visited two dealers recommended by a friend to find out the cost of the motorcycle.

**Dealer 1:** After paying 6 installments at \$ 14, 276.40, she would still need to pay an additional \$1,624.60 to complete the payment for the motorcycle.

**Dealer 2:** The full payment of the motorcycle will cost her \$86,580.00.

Answer the following questions to decide which one of the dealer's was giving Mrs. Omar the better deal.



**Part 1: Dealer 1**

Should Mrs. Omar decide to purchase the motorcycle from dealer 1, how much would she pay in full for the motorcycle? Show how you came up with your answer.

**Part 2: Dealer 2**

Mrs. Wants to complete payment for the motorcycle at least two weeks before her son's birthday, so that she can make arrangements for it to be delivered to him at his grandma's house on his birthday. She made a total of 9 installments.

How much would each installment be? Show how you found your answer.



**Part 3: Mrs. Omar looking at other options**

Use the information from the question in part 2 to answer the following.

If Mrs. Omar wanted to take half the time it would have taken for her to complete payment for the motorcycle.

How much would she need to pay per installment for  $4\frac{1}{2}$  months? Show how you arrived at your answer.



**Part 4: Choosing the dealer.**

Answer the following question, using the information from questions in parts 1, 2, and 3.

- ✓ **Dealer 1** is offering a 20% discount, if full payment is made in 5 installments.
- ✓ **Dealer 2** is offering \$2000 back upon completion of full payment before or within the agreed time period.

Mrs. Omar needs help making up her mind. Which dealer would you recommend that she buys the motorcycle from? Using mathematics give a detail explanation on both dealers, to show how you arrived at your recommendation.