

## Mathematic Form 1

### Topic 5: Algebraic expression

Please answer the question carefully.

1. If  $p = -1$  and  $q = 6$ , find the value of each of the following algebraic expressions.

[TP2]

a)  $5p + 2q - 3$

Answer:

b)  $7(q - p)$

Answer:

c)  $p^2 - pq + \frac{1}{3}q$

Answer:

d)  $0.5p + 0.2q$

Answer:

2. Determine whether the variable in each of the following situations has a fixed value or a variable value. Give your justification. [TP3]

a) A total of  $n$  students attended school yesterday.

Answer:

b) The price of a kilogram of durian sold at a stall is RM $y$ .

Answer:

**3. Determine whether the variable in each of the following situations has a fixed value or a variable value. Justify your answer. [TP3]**

a) Kavitha's age this year is  $y$  years.

Answer:

b) The time Lee uses to go to school each day is  $t$  minutes.

Answer:

c) The number of tourists who visit Malaysia every year is  $n$  people.

Answer:

d) The maximum number of passengers that the bus can carry is  $x$  people.

Answer:

**4. Find the value of each of the following algebraic expressions with the value of the given variable. [TP4]**

a)  $3x + y - 9$ , given  $x = 4$  and  $y = 5$

Answer:

b)  $2(p - 3q)$ , given  $p = -7$  and  $q = 2$

Answer:

c)  $\frac{2}{5}hk - k + 9$ , given  $h = 1$  and  $k = -10$

Answer:

**5. Izzat has sold  $x$  packs of “nasi lemak” and  $3y$  packs of chicken rice on a certain day. [TP6]**

a) Write an algebraic expression for the number of food packages Izzat sold that day.

Answer:

b) Izzat sells a packet of “nasi lemak” for RM 2.50 and a packet of chicken rice for RM 4. Given that Izzat's cost on that day is RM 80. Find the profit that Izzat earned that day if the value of  $x$  is 20 and the value of  $y$  is 35.

Answer:

**6. One campaign was attended by  $x$  children and  $y$  adults. The cost for a child is RM 15 while the cost for an adult is RM 28 [TP6].**

a) Write an algebraic expression for the total cost.

Answer:

b) It was found that 135 adults had participated in the campaign. If the maximum cost allocated is RM 5 000, find the maximum number of children participating in the campaign. Justify your answer.

Answer: