

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: