MINISTRY OF EDUCATION & YOUTH

Primary Exit Profile
Bringing Abilities to Light

Grade 5 Mathematics Sample Items

Performance Task

Prepared by the Student Assessment Unit

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Introduction

This booklet consists of items originally found on the 2019 administration of the Primary Exit Profile (PEP) Mathematics Performance Task (PT). Three (3) parts are contained within this booklet and together they provide a guide that should support the preparation of students for the 2022 administration of the Mathematics Performance Task.

Grade 5 Performance Task

Your Class Party

This task has three (3) parts. Read the information in each part carefully. Answer ALL the questions in Parts 1, 2 and 3.

Your class is planning a class party. You are to assist the teacher with purchasing food and drinks for the party. After completing a survey of your classmates, you discovered that most students in your class prefer to have pizza and juice. **You are preparing for all forty two (42) students in your class**. Each student should be served at least one slice of pizza and 1 cup filled with juice.

Overall Description of Task

Your task is to determine:

- the number of pizzas needed
- the amount of juice needed
- total cost of the pizza and juice

Part 1 – The Number of Pizzas Needed

Amazing Pizza sells pizzas of four different sizes: small, medium, large and extra-large. The table below shows the total number of slices per pizza and the fraction of the class one pizza serves.

Strand:
Number

Objective:
Solve problems which require operations on fractional numbers.

Question 1

Complete the table to show the fraction of the class each pizza serves.

Size of Pizza	Number of Slices	Fraction of class pizza serves
Small	6	$\frac{1}{7}$
Medium	8	
Large	10	
Extra-Large	12	

Item Description:

Students are required to use their knowledge of fractions to solve a real life mathematical problem, which involves determining the fraction of the class that pizza of different sizes will serve.

Key Description:
Appropriate fractions given for each pizza size ($\frac{8}{42}$, $\frac{10}{42}$ and $\frac{12}{42}$)

Question 2

For each pizza size, determine the number of pizzas needed to serve all the students in the class. Each student will receive one slice of pizza.

Indicate your answer by shading one circle in each row.

Sizes of Pizza	Number of Pizzas				
	3	4	5	6	7
Small	○	○	○	○	○
Medium	○	○	○	○	○
Large	○	○	○	○	○
Extra Large	○	○	○	○	○

Strand:
Number

Objective:
Solve problems requiring division.

Item Description:
Students are required to solve a real life mathematical problem, which requires them to use their knowledge of division, to determine the number of pizzas needed for the class party.

Key Description:
Shades the responses as follows: Small = 7, Medium = 6, Large = 5 and Extra-Large = 4

Part 2 – Amount of Juice Needed

A parent donated 50 cups for the juice. Each cup can hold 500 ml of juice.

Strand:
Number

Objective:
Solve worded problems involving the use of any one or two basic operations.

Question 3

What is the **LEAST** amount of juice needed if each student will receive one cup filled with juice?

Show your work.

Item Description:
Students are required to solve a real life mathematical problem in which they identify relevant quantities important to determining the minimum amount of juice needed for the party.

Key Description:
The number of students is multiplied by 500

Question 4

Based on your answer to Question 3, how many 2 litre bottles of juice should be purchased for the party?

(1000 ml = 1 litre)

Show your work.

Strand:
Measurement

Objective:
Choose and use the most appropriate metric units and their abbreviations in a given measurement situation.

Item Description:
Students are required to interpret their results to a previous question, based on a context given, by determining the number of two-litre bottles of juice that should be purchased for the party.

Key Description:
Total amount of juice (in ml) stated in question 3 is converted to litres and then divided by 2.

Part 3 – Total Cost of Pizza and Juice

You are given a budget of $9,500.00 to buy the pizza and juice from Amazing Pizza.

Use Amazing Pizza's price list shown below and your answer to Question 4 to determine the total cost of pizza and juice needed for the party. Stay within the budget.

AMAZING PIZZA

Price List

Small Pizza (6 slices)……$1,100.00

Medium Pizza (8 slices)……...$1,600.00

Large Pizza (10 slices)..……$1,800.00

Extra Large Pizza (12 slices)..……..$2,000.00

2 litre Juice……$200.00

You **MUST** also consider the following:

- Each student must get at least one slice of pizza.
- You may purchase pizzas of different sizes.
- For any 3 pizzas bought, you get one 2-litre bottle of juice free

Question 5

What is the total cost of pizza and juice you would purchase to stay within the budget?

Support your answer by showing your work.

Strand:
Number

Objective:
Solve worded problems involving the use of any one or two basic operations.

Item Description:
Students are required to make sense of a problem by analysing constraints given in order to choose an option, based on the total cost, which is within budget.

Key Description:
Total cost should be within the stated budget and calculated using:
- the total cost of pizza that is determined by the number of pizza needed to feed at least 42 students
- the total cost of the bottles of juice that is determined based on the answer to question 4