PHILIPPINE SCIENCE HIGH SCHOOL SYSTEM	REQUEST FOR QUOTATION FORM & NOTICE (GOODS)

Office/ Campus:	PHILIPPINE SCIENCE HIGH SCHOOL CALABARZON REGION CAMPUS
Address/ Contact Details:	Sitio Sampaga West, Barangay Sampaga, Batangas City

Quotation No.:	2024-02-032
Date :	February 16, 2024

Project: **FOR THE PURCHASE OF TARPAULINS FOR PI WEEK EXHIBIT 2024**

The **PHILIPPINE SCIENCE HIGH SCHOOL CALABARZON REGION CAMPUS (PSHS-CALABARZONRC)** intends to apply the sum of **ONE THOUSAND TWO HUNDRED PESOS ONLY (Php1,200.00)** being the Approved Budget for the Contract (ABC) to pay for the contract for the Project: **FOR THE PURCHASE OF TARPAULINS FOR PI WEEK EXHIBIT 2024.**

TERMS OF REFERENCE:

1. The Philippine Science High School - CALABARZON Region Campus (PSHS-CALABARZONRC) now invites qualified suppliers/dealers/manufactures to submit price quotations for the above-mentioned project with the following deliverables / scopes / specifications:

   1.1 Delivery and installation (whenever required) will be at PSHS CALABARZON Region Campus in Sitio Sampaga West, Brgy. Sampaga, Batangas City

2. Procurement will be conducted through one of the Alternative Modes of Procurement under the "Government Procurement Reform Act".

3. Interested suppliers may obtain the Request for Quotation (RFQ) Form from the Finance and Administrative Division (FAD), PSHS-CALABARZONRC c/o Mr. Edsel E. Espino (043) 724-6199; from 9:00am – 3:00pm without cost and from https:// www.philgeps.net.

4. Upon submission of the RFQ, please attach the following documentary requirements:
   a. Mayor's Permit
   b. PhilGEPS Registration Number
   c. DTI or SEC Registration
   d. BIR 2303/OCR Number

5. The deadline for submission of duly accomplished RFQ Form (Open or Sealed) is on February 23, 2024, 3:00pm. Suppliers are not required to attend the Opening of Quotations.

6. Send your RFQ with complete documentary requirements to bac@cbzrc.pshs.edu.ph and address it to Kendra L. Inumerable, BAC Secretariat Member.

7. The winning supplier will be notified in writing or by phone or otherwise by the Head of the Procuring Entity (HOPE) subject to the provisions of RA 9184 and its Revised IRR.

8. The PSHS-CALABARZONRC reserves the right to accept or reject any price offer, and to annul the procurement process and reject all offers at any time prior to contract award, without thereby incurring any liability to the affected supplier or suppliers.

ROMEO M. MADRONA, JR.
BAC Chairperson

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SIR / MADAM:

Quotation No.: 2024-02-032
Date : February 16, 2024

May we request for quotation on materials enumerated hereunder. If you are interested and in a position to furnish the same, we shall be glad to have your best prices.

Delivery within _____ calendar days upon receipt of approved Purchase Order (PO).

In case of failure to make the full delivery/completion within the time specified as offered/required, the Suppl . Contractor shall be liable for liquidated damages/penalty of one-tenth (1/10) of one percent (1%) of the Contract Price per calendar day of delay minus the value of the delivered/completed portion(s) of the approved P.O./Contract.

Item #	QTY	UNIT	ITEM/DESCRIPTION	UNIT COST	TOTAL COST
			PRICES MUST BE Tax (VAT) INCLUSIVE		
1	2	PIECES	TARPAULIN (1FT X 2 FT)		
			TOTAL		

Delivery Term : BEFORE MARCH 13, 2024
Delivery Time : -
Payment Term : WITHIN 15-30 CALENDAR DAYS AFTER THE COMPLETE DELIVERY OF PROCURED GOOD/S AND/OR SERVICE/S

Very truly yours,

EDSEL E. ESPINO
PURCHASER

Telephone: **043-779-8320 local 803**

PRICES IN THE ABOVE OFFER ARE CERTIFIED TRUE AND CORRECT:

Authorized Company Representative : _____
(Signature Over Printed Name)

Company Name : _____
Address : _____

Telephone nos. : _____
T.I.N. : _____

IMPORTANT
1. Prices must be typewritten in ink clearly.
2. If offering a substitute/equivalent, specify the brand and make.

PURCHASE REQUEST

Entity Name: PHILIPPINE SCIENCE HIGH SCHOOL - CALABARZON REGION CAMPUS

Fund Cluster: 1101101

Office/Section: CID

PR No.: 2024-02-032

Responsibility Center Code: 19-016-09-00014-02

Date: ~~January 29, 2024~~ February 16, 2024

Stock / Property No.	Unit	Item Description	Quantity	Unit Cost	Total Cost
2	Pcs	Tarpaulin (1x2)	2	₱600.00	₱1,200.00
		TOTAL			₱1,200.00

Purpose: To be displayed in the Exhibit during Pi Week 2024 on March 11 - 14, 2024.

	Requested by:	Approved by:
Signature :		
Printed Name	ANGELICA M. ORTEGA	REX S. FORTEZA
Designation :	SST I	CAMPUS DIRECTOR

TERMS OF REFERENCE FOR THE PURCHASE OF TARPAULINS FOR PI WEEK EXHIBIT 2024

I. BACKGROUND OF THE PROJECT

Two (2) MATH 6 posters made by students from Batch 2022 shall be presented at the exhibit during the Pi Week 2024 celebration of PSHS-CALABARZONRC. To ensure the quality of printing, the organizers (Math Unit) are planning to outsource the printing to a local printing press. The school printers are also incapable of printing on the required tarpaulin size.

II. RATIONALE

The Pi Week Exhibit is one of the key events for the Pi Week Celebration 2024 of PSHS CALABARZONRC, as organized by the Mathematics Unit. The projects to be displayed include two posters from some of the students of MATH 6 of A.Y. 2021 – 2022. The posters should be printed on a tarpaulin to ensure durability and presentability.

III. SCOPE

Each poster shall have the following specifications:

Material: tarpaulin

Dimension: 1 ft by 2 ft (Please see attached layout for reference)

IV. APPROVED BUDGET FOR THE CONTRACT

The approved budget for the contract is Php 1,200.00, which shall include the above-mentioned scope.

V. MODE of PROCUREMENT

Small value procurement in accordance with 2016 Revised IRR of RA 9184

VI. EVALUATION AND SELECTION OF CRITERIA

A proposal with the lowest quotation with complete documents shall be accepted.

Postal Address: Sitio Sampaga West, Brgy. Sampaga, Batangas City
Website: www.chzrc.pshs.edu.ph
Trunkline.: (043) 779-8320
Tel/Fax. No.: (043) 724-6199

VII. PAYMENT SCHEDULE

The campus shall pay in full 15-30 calendar days after the product has been delivered.

Prepared by:

ANGELICA M. ORTEGA
Organizer

Noted by:

1/23/24

ROMEO M. MADRONA, JR.
Mathematics Unit Head

Recommending Approval:

MABELLE V. FURTO
CID Chief

Certified Funds Available:

ARNEL E. AGUILA / DANICA CACHO
Accountant II

Recommending Approval:

MA. THERESA P. PAGULAYAN 2/5/24
FAD Chief

Approved:

2/15/24

REX S. FORTEZA
Director III

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INT-EGG-RALS

Using integration concepts to approximate the volume of an egg

Banados | Liwag | Ochea | Vila

By modelling the outline of half of an egg as a function and rotating the graph of the function along an axis, a model of the egg can be generated which can be used to calculate

The software was used to plot the points on the outline of the egg to generate an equation of the curve.

The software was used to solve the matrices associated with the system of equations in order to determine a, b, and c from the x and y values of the plot.

One form of function for modelling an egg shape is $f(x) = (ax^3 + bx^2 + cx + d)\sqrt{1 - x^2}$

To determine the constants, was done. A system of linear equations for the constants a, b, and c was then obtained

Generated equation of the curve:

Bounds at x: [-2.8, 2.8] Bounds at y: [0.0, 2.1]

Actual Egg

The actual egg had an and

Modelled Egg

The modeled egg had an and The determined centroid of the modelled egg is at

Setup used for determining the volume using

The setup used for determining the of the modeled egg

The setups used for determining the of the modeled egg

x-coordinate = My/A = y coordinate = Mx/A =

Conclusion

After necessary calculations, it was determined that the %error for the determined volume and arclength were and The level of error is still within the acceptable range, however, so The error may be because the form of the function used is not appropriate for the egg shape considered. This might be seen from the obtained function overestimating the plotted points in the left half of the egg while underestimating in the right half. as their non-polynomial forms might make the regression method used tedious. But overall

2 ft

HOW MUCH CAN YOUR JUG HOLD? (AND MORE)

ATIENZA
BENAVENTE
CUBACUB
CUETO

Water Jugs are essential everyday items that allow a person to store water on-the-go. Its essentiality is further backed up by its inclusion in the necessary items for face to face classes. However, its usefulness is also dictated by its water capacity.

In this short evaluation, the following are sought by using basic concepts of integration:

Volume Arclength Centroid

FUNCTION MODELLING

Tracker was used to plot the points to fit the exterior of the jug

Excel was used to generate the function

ACQUIRED FUNCTION

$y = 0.775\ln(x) + 2.8294$

VOLUME

DISK METHOD

Set up $\int_{x}^{17.5} \pi(0.775\ln(x) + 2.8294)^2\,dx$

Volume: 1037.52 sq. cm/mL

The volume of the jug is determined to be 1037.52mL which bears a 3.752% Error from the actual TJ

CYLINDRICAL SHELL METHOD

Set up $\int_{x}^{\text{Extent}} 2\pi(x)(17.5 - x)(0.2889 - 3.6667)\,dy$

Volume: 1037.46 sq. cm/mL

The volume of the jug is determined to be 1037.46mL which bears a 3.746% Error from the actual TJ

ARCLENGTH

Set up $\int \sqrt{1 + \left(\frac{0.602021}{x}\right)^2}\,dx$

Arc length is 24.1941 cm

The arc length calculated from the expression is 24.1941 cm which is realistic for the figure given that its height is 17.5cm.

On a separate note, bounds for the arc length are from 0.0001 to 17.5. It cannot start from 0 because the arc length will become infinite because the function is undefined when x=0

CENTROID

Set-up:

Set-up:

The centroid of the cross-sectional area of the jug lies in the point (9.554, 2.207)