Your Student's ID _____

Unit 04

Exercise 06 – Getting Comfortable with Elasticity

1.	You must complete all tasks to achieve a total score of 4 points.			
2.	You must provide precise calculations for each task. While you do not need to show your rough work, you must include the formula, your input values, and the final result.			
3.	You will not receive any points for Part 1, but any miscalculation will lead to incorrect answers in all subsequent parts.			
Cal	ulating Opportunity Cost			
Со	nsider a student with ID 66110293 . The student has two options for their summer break:			
	• Job 1: Working at a business or NGO. Daily wage: \$293 for 9 hours (the last three digits of the			
	student's ID). Replace with your value:			
• Job 2: An alternative job. Daily wage: \$392 for 9 hours (the last three digits of the student'				
	reverse order). Replace with your value:			
	k 1: Finding Value A = Opportunity cost of working 1.5 hours at the higher-paid job (rounded to the rest whole number). Calculation:			
	Value A =			
	k 2: Finding Value B = Opportunity cost of working 1 hour at the lower-paid job (rounded to the rest whole number). Calculation:			
	Value B =			

Part 2: Analysing Income Elasticity of Demand for Smartphones

Part 1:

Using **Value A** and **Value B** from the previous part, assume that the student's income represented by these values changed from the lower to the higher value (so we have Income 1 and Income2). We also know that the **income elasticity of demand** for smartphones is **1 + 0.XX**, where **XX** are the last two digits of your student ID. **Example:**

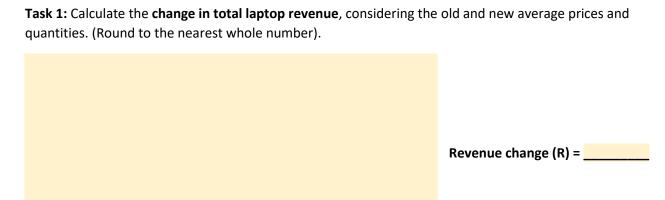
for ID **66110293**, the income elasticity would be: **1 + 0.93 = 1.93**

	Task 1: What is the % change in the number of smartphones demanded? (Round to one decimal place).			
	ΔQ _{d_smartphone} =			
	Task 2: Assume the initial demand for smartphones is equal to the last three digits of the student's ID (e.g., 293 for 66110293). Now, when you know % change in quantity demanded - calculate the new number of smartphones demanded (rounded to the nearest whole number).			
	Q demanded_smartphone =			
Part 3:	Analysing Cross-Price Elasticity of Demand			
	The cross-price elasticity of demand for smartphones (in relation to laptop price changes) is calculated as 3 - Income Elasticity of Demand for Smartphones (1.93 from the previous task) Using the previous example: $3 - 1.93 = 1.07$			
	Task 1: Calculate the % change in the price of laptops (rounded to one decimal place).			
	ΔP _{laptop} =			
	Task 2: The previous average price of laptops was \$450 . Calculate the new average laptop price (rounded to the nearest whole number).			
	P laptop_new =			
Part 4:	Analysing Elasticity of Demand for Laptops			
	The elasticity of demand for laptops is given by: 0.5+ (the absolute value (positive) of the cross-price elasticity of demand for smartphones from the previous task)			
	Task 1: Calculate the % change in the number of laptops demanded (rounded to one decimal place).			
	$\Delta Q_{ ext{demanded_laptops}} = $			
	Task 2: Assume the initial monthly demand for laptops equals the reverse order of the last three digits			

Task 2: Assume the initial monthly demand for laptops equals the reverse order of the last three digits of the student's ID (e.g., 392 for 66110293 or 570 for 661100057). Calculate the **new** quantity of laptops demanded (rounded to the nearest whole number).

٨	✓ Q demanded_laptops =	

Part 5: Evaluating Total Revenue Change for Laptops



Task 2: Determine whether **total revenue** from laptop sales has **increased or decreased** (circle the correct answer).

Fall / Growth