

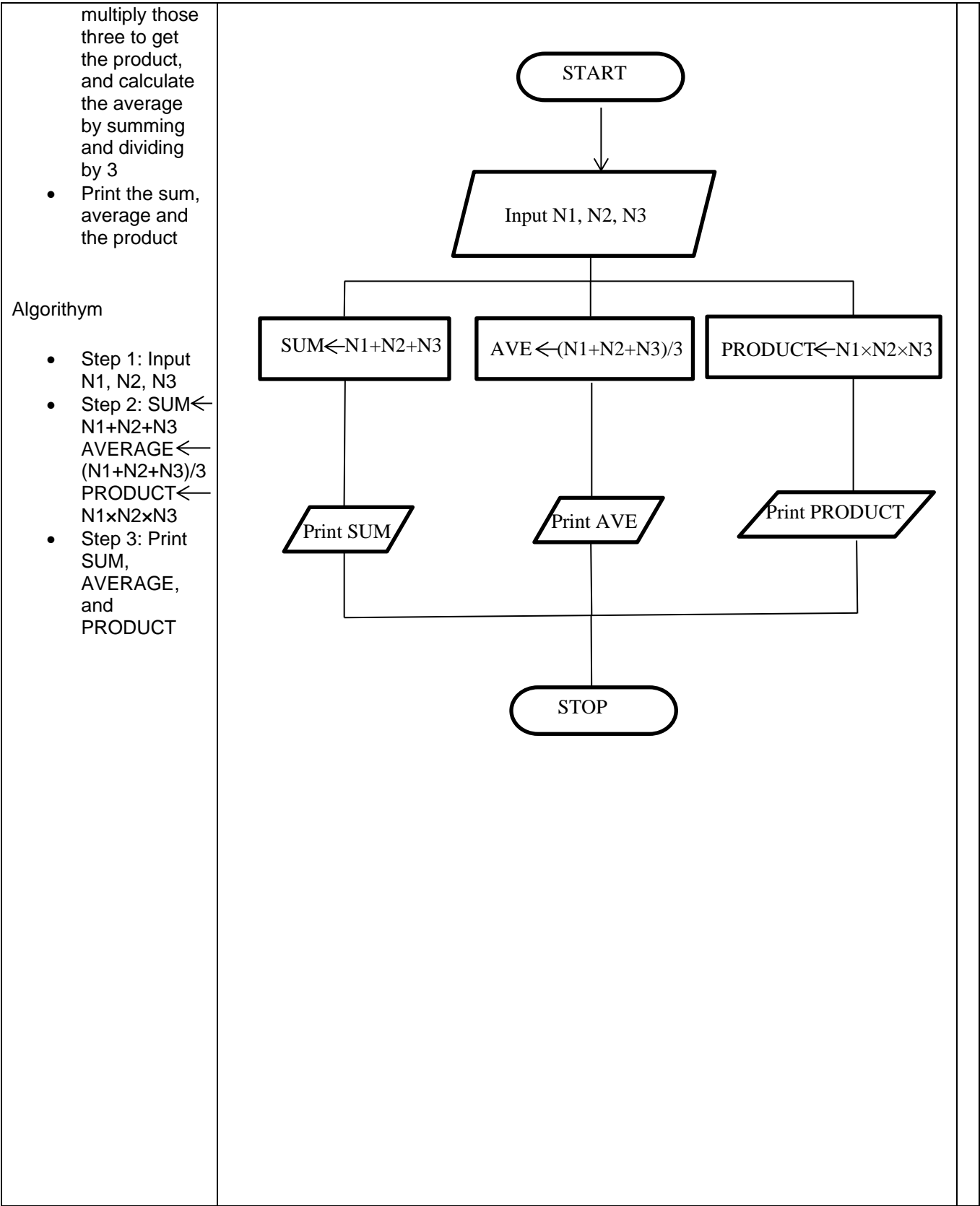
EXERCISES

1. Write a pseudocode/algorithm and draw a flowchart of the following:
- a. The radius of a circle is equal to one unit. Compute the corresponding area of the circle and print out the value of the radius and the area.

<p>Pseudocode:</p> <ul style="list-style-type: none"><li>• Input the radius of circle (one unit)</li><li>• Calculate the area of a circle by multiplyng <math>\pi</math> into <math>r^2</math></li><li>• Print area (A)</li></ul> <p>Algorithm</p> <ul style="list-style-type: none"><li>• Step 1: input r</li><li>• Step 2: <math>A \leftarrow \pi \times r^2</math></li><li>• Step 3: Print A</li></ul>	<pre>graph TD; START([START]) --&gt; Input[/Input r/]; Input --&gt; Process[A ← π × r²]; Process --&gt; Output[/Print A/]; Output --&gt; STOP([STOP]);</pre>
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- b. Given three numbers A,B, and C. Compute and print out the sum, the average, and the product of these values.

<p>Pseudocode:</p> <ul style="list-style-type: none"><li>• Input three numbers</li><li>• Add the three numbers to get the sum,</li></ul>	
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c. The ABC Manufacturing Company plans to give a year-end bonus to each of its employees. Compute the bonus of an employee and consider the following criteria: If the employee’s monthly salary is less than 1,000.00 pesos, the bonus is 50% of the salary; for employees with salaries greater than 1,000.00 pesos, the bonus is 1,000.00. Print out the name and corresponding bonus of the employee.

Pseudocode:	
<ul style="list-style-type: none"><li>• Input the number of employee’s monthly salary</li></ul>	

<ul style="list-style-type: none"><li>• Calculate the bonus by getting the 50% and or same amout of monthly salary of the employees.</li><li>• Print the employee's name and its bonus</li></ul> <p>Algorithym</p> <ul style="list-style-type: none"><li>• Step 1:</li><li>• Step 2:</li><li>• Step 3:</li></ul>	
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- d. Given two numbers X and Y. Determine the difference between X and Y. If X-Y is negative, compute  $R=X+Y$ ; if X-Y is zero, compute  $R=2X+2Y$ ; and if X-Y is positive, compute  $R=X*Y$ . Print out the values of X,Y, and R.

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