

**SANGAM SKM COLLEGE- NADI 2021**  
**YEAR 11 APPLIED-MATHEMATICS**  
**WORKSHEET 1 WEEK 2**

Q1. An operation table defined by  $\clubsuit$  is given in the table below.

<b>●</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>0</b>	0	1	2	3	4
<b>1</b>	1	2	3	4	0
<b>2</b>	2	3	4	0	1
<b>3</b>	3	4	0	1	2
<b>4</b>	4	0	1	2	3

(i) Is the set closed? Explain.

(ii) Evaluate  $(3 \clubsuit 4) \clubsuit 2$ .

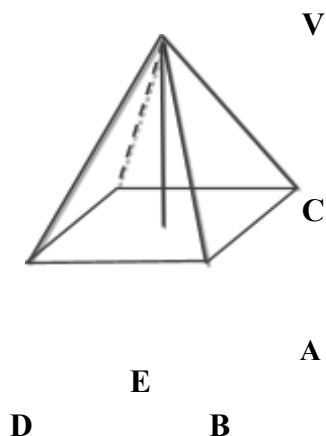
(iii) Give the inverse of 3

Q2. A company is selling DVD player for \$1200. Alternatively, it could be bought by paying a 20% deposit and monthly installments of \$125 for one year. If the second alternative is chosen:

(i) what will be the total cost.

(ii) how much extra will be paid by choosing to buy the DVD by this method.

Q3. A **square pyramid** is shown below.



The length of **DB** = 5 cm , **AB** = 5 cm and the perpendicular height **VE** = 15 cm.

Calculate the **volume** of this pyramid in  $\text{cm}^3$

