BASIC MATHEMATICS
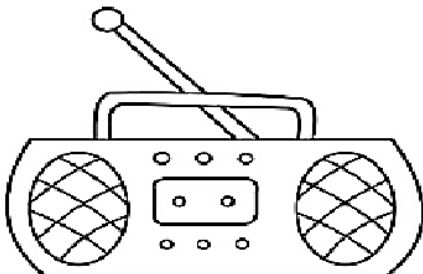
1. When simplified $3^0 \times 6$ equals

    A.   0

    B.   1

    C.   6

    D.   18

2. If $a \bullet b = b \bullet a$ then the operation $\bullet$ is

    A.   closed.

    B.   commutative.

    C.   associative.

    D.   distributive.

3. Make b the **subject** of the formula $\sqrt{3b+1} = a$

    | Hint: b should be alone one side. Perform opposite operation. |

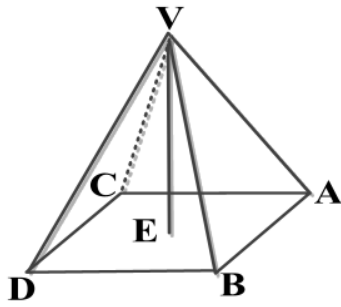4. Tomasi buys a radio on **hire purchase**. The **cash price** is $850.

    He pays $200 **deposit** and 12 **monthly instalments** of $70.

    How much **interest** is paid by Tomasi?

    | Hint: Interest = Total Hire Purchase Cost – Cash Price |

5. 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 cm^3 .

Hint: V = 1/3 × Base Area × Height

6. The table given below shows the set {0, 1, 2} under the operation ⊕. Use the table to answer parts (i) – (iv).

⊕	0	1	2
0	0	1	2
1	1	2	0
2	2	0	1

(i) Why is the set **closed** under ⊕ ?

(ii) What is the **identity element**?

(iii) Give the **inverse** of 1.

(iv) Evaluate (1 ⊕ 2) ⊕ 2.