

$G = \{1, 3, 9, 19, 27\}$
 G is cyclic group under

$$(G, \times_{56})$$

(1) inverse of 1 = 1

(2) inverse of 3 = 19 $(\because 3 \times_{56} 19 = 1)$

(3) inverse of 9 = 25 $(9 \times_{56} 25) = 1$

$$(9 \times 25 = 225)$$

but 25 is not in G and G is a group so 25 must be in G

$$\begin{array}{r} 56 \overline{) 225} \\ \underline{224} \\ 1 \end{array}$$

Remainder

hence

$$\underline{\underline{a = 25}}$$

(4) inverse element of 19 = 3 $(19 \times_{56} 3) = 1$

(5) inverse element of 27