Quiz # 2

Problems:


2. Give the order of $[2]$ in $\mathbb{Z}/7\mathbb{Z}$;

3. Find the remainder of $13^{24}$ when divided by 35;

4. Show that the following function is well-defined $g : \mathbb{Z}/8\mathbb{Z} \to \mathbb{Z}/12\mathbb{Z}$ defined by $g([x]_8) = [6x]_{12}$.

5. Show that the formula below does not define a function $g : \mathbb{Z}/2\mathbb{Z} \to \mathbb{Z}/5\mathbb{Z}$ defined by $g([x]_2) = [x]_5$. 