Let $k_{p u b}=(n, e)=(25021,3)$

1. Pick an integer an integer $x \in \mathbb{Z}_{n}$ to represent the plaintext and encrypt it by

$$
y=e_{k_{\text {pub }}}(x) \equiv x^{e} \quad \bmod n
$$

2. Write your ciphertext on the board
3. Try to decrypt the ciphertexts from other students

## Fill out the following tables

1. | p | 3 | 5 | 7 | 11 | 13 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\phi(p)$ |  |  |  |  |  |

Do you notice a general pattern?

2. | n | 6 | 10 | 15 | 21 | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\phi(n)$ |  |  |  |  |  |

Do you notice a general pattern?

