Math 580: Quiz 5

Show ALL Work   Name _____

1. Calculate $\phi(12)$ and $\phi(18)$.

   $\phi(12) = $ ⬚

   $\phi(18) = $ ⬚

2. Given that $\phi(825) = 400$, what is the remainder when $2^{10012010}$ is divided by 825? Note that the remainder should be in the set $\{0, 1, \ldots, 824\}$.

   Remainder: ⬚