A few more defs:

1) Let p be a prime. A group G is called a <u>p-group</u> if $\forall g \in G$, $\exists k \in \mathbb{N}$ s.t. $g^{p^k} = e$.

2) If G is a finitely generated Abelian gp. w/ invariant factors $n_1, \ldots, n_s$

(i.e. $\mathbb{Z} \cong \mathbb{Z}^r \times \mathbb{Z}_{n_1} \times \mathbb{Z}_{n_2} \times \cdots \times \mathbb{Z}_{n_s}$, $n_{i+1} | n_i$)

then G is of <u>type</u> $(n_1, \ldots, n_s)$.

3) The <u>exponent</u> of a group G is the smallest $n \in \mathbb{N}$ s.t. $\forall g \in G$, $g^n = e$. (or ∞ if no such n exists).

4) A <u>finite elementary Abelian group</u> is an Abelian group with exponent p, for some prime p.

Exs: $\mathbb{Z}_p$, $\mathbb{Z}_p \times \mathbb{Z}_p$, $\ldots$, $\mathbb{Z}_p \times \cdots \times \mathbb{Z}_p$.