1. Do problems 6.1: 7, 17, 18

2. In class we used the following fact:

   **Lemma 1** Let $p$ be prime and $\alpha \in \mathbb{N}_{>0}$. Then the divisors of $p^\alpha$ are $\{1, \ldots, p^\alpha\}$.

   This is not difficult to show. Give a proof. Using the Fundamental Theorem of Arithmetic is probably the easiest way to go (and legal ... after all we did all the work proving it). For a few minutes play at a different proof.

3. Do problems 6.2: 2

   The grader will carefully consider 6.1.7a and 6.1.18.