## Problem 5: Largest Factor

Determine the largest integer that divides

$$
n^{5}-17 n^{3}+16 n, \quad \text { for all } \quad n \geq 4
$$

It needs to be a fixed integer, not depending on $n$.

As always, show your work, fully explain and justify your answer.

Posting Date 10/22/2017. Submit solutions to Noah Aydin, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on $11 / 03 / 2017$.

