Problem of the Week-5: Largest Factor

Determine the largest integer that is a divisor of

$$n^5 - 17n^3 + 16n$$

for all $n \ge 4$.

As always, explain and justify your answer.

Posting Date 3/20/11. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 4/1/11.