Problem of the Week-5: Counting Non-square Factors

How many of the positive factors of 11! are not perfect squares?

As always, show your work and prove your answer.

Posting Date 3/22/13. 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 3/29/13.