Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the following integrals:

   (a) $\displaystyle\int (x^2 + 1)^{2017} 10x \, dx$

   (b) $\displaystyle\int x^3 \ln 2x \, dx$