Skyscraper Windows Task

A building is 12 stories high and is covered entirely by windows on all four sides. Each floor has 38 windows on it. Once a year, all the windows are washed. The cost for washing the windows is \$2.00 for each first-floor window, \$2.50 for each second-floor window, \$3.00 for each third floor window, and so on.

How much will it cost to wash the windows of this building? What if the building is 30 stories tall? n stories tall?

Task adapted from:

Driscoll, M. (1999). Fostering Algebraic Thinking: A Guide for Teachers, Grades 6-10. Portsmouth, NH: Heinemann.