Answer on Question #71853 – Math – Discrete Mathematics

Question

The boys' and girls' track teams have both won their regional tournament, and they decide to stay in the tournament city for an extra couple of hours to have a victory dinner. The coach of the boys' team calls the parents of three student athletes to inform them of the delay. These parents each call three other households to tell them the news, and the pattern continues.

If Round 1 is the initial three phone calls made by the coach, how many phone calls will be made during Round 4?

Solution

$Round\ 1:\ 3\ calls.$
$Round\ 2:\ 3*3 = 3^2 = 9\ calls.$
$Round\ 3:\ 3*3*3 = 3^3 = 27\ calls.$
$Round\ 4:\ 3*3*3*3 = 3^4 = 81\ calls.$
   Answer: 81.