

$$N(q) = \pi^{2q} \left[\frac{3(2q-1)\zeta(3)}{2q\zeta(2)} \right]^{2q-1} - \left[\frac{(2q-1)\zeta(3)\pi^2}{\zeta(2)} + \frac{8q-3}{6} \frac{\zeta(2)}{\zeta(3)} \right]$$