

1.1.1

$$gh = (1 - 2\sigma_2 + 3\sigma_5)(3\sigma_6 - 2\sigma_4 + \sigma_2) = (3\sigma_6 - 2\sigma_4 + \sigma_2) + 2\sigma_2(3\sigma_6 - 2\sigma_4 + \sigma_2) + 3\sigma_5(3\sigma_6 - 2\sigma_4 + \sigma_2) = (3\sigma_6 - 2\sigma_4 + \sigma_2) + 6\sigma_2\sigma_6 - 4\sigma_2\sigma_4 + 2\sigma_2^2 + 9\sigma_5\sigma_6 - 6\sigma_5\sigma_4 + 3\sigma_5\sigma_2$$