

Correct. Multiply each term in the first polynomial with each term in the second polynomial, and then combine the like terms.

$$6m(3m^2) + 6m(5m) + 6m(8) - 5(3m^2) - 5(5m) - 5(8)$$

$$= 18m^3 + 30m^2 + 48m - 15m^2 - 25m - 40 = 18m^3 + 15m^2 + 23m - 40$$