$$C_1 = \frac{0-2^2}{2^1-2^2} * \frac{0-2^3}{2^1-2^3} = \frac{-4}{-2} * \frac{-8}{-6} = \frac{32}{12} = \frac{8}{3}$$

$$\frac{8}{3} \bmod 13 = 8 * 3^{-1} \bmod 13 = 8 * 9 \bmod 13 = 7$$

$$3 * 9 = 27$$

$$C_2 = \frac{0-2^1}{2^2-2^1} * \frac{0-2^3}{2^2-2^3} = \frac{-2}{2} * \frac{-8}{-4} = -2 \bmod 13 = 11$$

$$C_3 = \frac{0-2^1}{2^3-2^1} * \frac{0-2^2}{2^3-2^2} = \frac{-2}{6} * \frac{-4}{4} = \frac{1}{3} \bmod 13$$

$$1 * 3^{-1} \bmod 13$$

$$1 * 9 \bmod 13 = 9$$

$$(3x^2+8x+7)(7) + (9x^2+8x+9)(11) + (3x^2+6x+5)9$$

$$(49 + 99 + 45) \bmod 13$$

$$10 + 8 + 6 \bmod 13$$

$$24 \bmod 13$$

$$11 \bmod 13$$