Section 6.5: Factoring by Grouping and a General Strategy for Factoring Polynomials

1. Which of the following is equivalent to $x^2 + x + 0$?

   (a) $x(x)$
   (b) $x(x + 0)$
   (c) $x(x + 1)$
   (d) $2x^2$
   (e) $3x$

2. Factor: $3y^3 - 12y^2 - 2y + 8$

   (a) $(3y^2 - 2)(y - 4)$
   (b) $(y^2 - 4)(3y - 2)$
   (c) $(y^2 - 2)(3y^2 - 4)$
   (d) $(3y^2 - 2)(y + 4)$