Directions: Show your work, organize, and write clearly.

1. Let \( p(x) = 2x^3 - x^2 - 2x + 1 \).
   a) Verify \( p(1) = 0 \).
   b) Factor \( p(x) \) completely.
   c) Solve \( p(x) = 0 \).

2. Let \( p(x) = 2x^3 - 15x^2 + 31x - 12 \).
   a) Verify \( p(3) = 0 \).
   b) Factor \( p(x) \) completely.
   c) Solve \( p(x) = 0 \).

3. Let \( p(x) = 4x^3 + 8x^2 - x - 2 \).
   a) Verify \( p\left(\frac{1}{2}\right) = 0 \).
   b) Factor \( p(x) \) completely.
   c) Solve \( p(x) = 0 \).

4. Let \( p(x) = x^3 - 7x - 6 \).
   a) Verify \( p(-1) = 0 \).
   b) Factor \( p(x) \) completely.
   c) Solve \( p(x) = 0 \).

5. Let \( p(x) = 2x^3 - 9x^2 - 2x + 24 \).
   a) Verify \( p(4) = 0 \).
   b) Factor \( p(x) \) completely.
   c) Solve \( p(x) = 0 \).