Alg Oct 31 - polynomial rings

Score: _____

1. **If F is a field, then F[x] is a ring of polynomials.**

   Ⓐ True

   Ⓑ False

2. **If a polynomial f(x) of degree 17 is divided by a polynomial g(x) of degree 5, what can you say about the remainder, r(x)?**

   Ⓐ It may not exist if the coefficients of f are not divisible by the coefficients of g.

   Ⓑ It has degree 12.

   Ⓒ It might have degree 3.

   Ⓓ It must have degree 5.

3. **Which of the following is a monic polynomial over Z_5?**

   Ⓐ 3x^2+1

   Ⓑ x^7+4x^6

   Ⓒ 5x^2+5x+2