Question 2:

```
> restart:
  poly_A := 6*y^2*x^3 + 2*x^2*y^2 + 5*y*x^2 + 3*x*y^2 + y*x + y^2 +
  x + y:
  poly_B := 2*y*x^2 + x + y:
  poly_A_mod := 6*y^2*x^3 + 2*x^2*y^2 + 6*y*x^2 + 3*x*y^2 + y*x +
  y^2 + x + y:
  printf("\nPolynomials:\n\nA: %a.\nB: %a.\nA modified: %a.\n",
  poly_A, poly_B, poly_A_mod);
```

Polynomials:

A: 6*x^3*y^2+2*x^2*y^2+5*x^2*y+3*x*y^2+x*y+y^2+x+y.
B: 2*x^2*y+x+y.
A modified: 6*x^3*y^2+2*x^2*y^2+6*x^2*y+3*x*y^2+x*y+y^2+x+y.

```
> res_one := divide(poly_A, poly_B,'q_one'):
  printf("The output is: %a and the quotient is: %a.\n", res_one,
  q_one);
```

The output is: true and the quotient is: 3*x*y+y+1.

```
> res_two := divide(poly_A_mod, poly_B, 'q_two'):
  printf("The output is: %a.", res_two);
```

The output is: false.