Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Factor completely ((a)-(c) 1 point each, (d) 2 points):

(a) 
$$xy - y - 6x + 6 =$$

(b) 
$$9x^2 - 16y^2 =$$

(c) 
$$9x^2 + 30x + 25 =$$

(d) 
$$x^2y - 2x^2 - y + 2 =$$

2. Factor completely:

(a) 
$$x^2 + 11x + 24 =$$

(b) 
$$30x^2 - x - 3 =$$

3. Factor completely:

(a) 
$$2xy^2 - 27xy + 70x =$$

(b) 
$$4x^5 + 4x^3 + x =$$