ALG 2B
Final Exam Review
Semester 1

Ch 5 Factoring / Solving Quadratics $ax^2+bx+c=0$

Factor each expression.

1. x^2-x-6 2. $x^2-10x+25$ 3. $4x^2-9$ 4. $6x^2-7x-3$

Solve each equation by factoring

5. $4x^2+27x-7=0$ 6. $x^2+12x+36=0$

Use FOIL to change factored form into standard form.

7. $(3x-1)(x-4)=0$ 8. $(2x+1)^2=0$

CH6 Classifying / Solving / Graphing Polynomials

Classify each polynomial by: a) its degree b) # of terms
c) rewrite in standard form

1. $y=6x^3+2x-3x^2$ 2. $y=5x+2$ 3. $y=x^4-2x^2+3x^3+6$

Rewrite the factored form as standard form

4. $y=x^2(x-7)$ 5. $y=(x-3)(x+2)(x-1)$

Find the end behavior of each polynomial equation.

6. $y=-x^4+2x^2-7$ 7. $y=x^3+1$ 8. $y=2x^2+3x+1$

Find the zeros (solve by factoring) for each of the following: Note any multiplicities

9. $2x^3+4x^2-6x=0$ 10. $x^3+x^2=0$

11. Graph #9 12. Graph #10

Given the zeros of a polynomial equation, write its equation in standard form.

13. $x=0, x=1, x=-1$ 14. $x=2$ w/ multiplicity 2, $x=-3$