Adv.Alg.II 7.1-7.6 Chapter Test (B) Good Luck to

Each question is worth 4 pts. Block

Multiply.

1. (x +2)(x – 7 ) 1.

2. (10x + 8d)(10x – 8d) 2.

3. (3x + 7)2 3.

4. (x -4)(4x2 -5x + 6) 4.

5. (x – 2)3 5.

6. (x + 6)(2x – 4)(x – 8) 6.

7. (2y + 3)3  7.

8. (x2 – 3x + 5)(x2 – 7x + 1) 8.

Factor completely.

9. x2 – 81 9.

10. x3 + 125 10.

11. x2 – 2x – 15 11.

12. 10x3 – 15x2 + 2x – 3 12.

13. 4x2 – 32x + 64 13.

14. x4 – y4 14.

15. 6x2 + 7x – 20 15.

16. 2c4 – 128c 16.

Calculate the discriminant and use it to decide if the polynomial factors. Factor the

polynomial if possible.

17. 7x2 – 30x + 11 17.

18. 20x2 + 39x + 18 18.

Do the long division and write the expression in mixed number form, or in polynomial form if the remainder is zero.

19. 19.

20. 20.

Use synthetic division to find the quotient and remainder.

21. 21.

22. 22.

Use the Factor Theorem or the pattern for factoring the sum or difference of like, odd powers to factor completely.

23. x3 + 3x2 – 6x – 8 23.

24. x5 – 32 24.

Sketch the graph. Write and label the discontinuities on the line provided.

25. *f(x) =*  25.