

Homework 5

This homework is due in class on Monday 11/02/09

1 Course material

Quadratic functions (continued)

Textbook Questions: Section 4.2: 58, 60, 62

Textbook Questions: Section 4.5: 2, 4, 6, 10, 40

Power functions/Higher order polynomial

Textbook Questions: Section 4.6: 6, 10, 12

For each of the functions defined in the following problems, ignore the textbook question but instead (a) State whether the function is fully factored, and if not, factor it further (b) Determine the x - and y -intercepts, (c) Draw a signs table, (d) Determine the behavior of the function near *each* of the x -intercepts, (e) Determine the behavior near infinity (i.e. say $f(x)$ goes to as x goes to $-\infty$ and $f(x)$ goes to as x goes to $+\infty$) and finally (g) *Sketch* the function given all of this information.

Textbook Questions: Section 4.6: 28, 30, 32, 34, 36, 38, 40.

2 Applied Problems

Textbook Section 4.5 numbers 28, 30, 32, 56