Unit 5, HW #2

1. a) As $x \to -\infty$, $f(x) \to -\infty$
   As $x \to \infty$, $f(x) \to \infty$
   b) Odd
   c) Positive

2. a) As $x \to -\infty$, $f(x) \to -\infty$
   As $x \to \infty$, $f(x) \to -\infty$
   b) Even
   c) Negative

3. As $x \to -\infty$, $f(x) \to \infty$; As $x \to \infty$, $f(x) \to \infty$
4. As $x \to -\infty$, $f(x) \to \infty$; As $x \to \infty$, $f(x) \to -\infty$
5. D: $\mathbb{R}$
   R: $\mathbb{R}$
   max: (2.82, 1.09)
   min: (1.18, -1.09)
   End: $-\infty$; ∞
   ↑ int: (1.18, 2.82)
   ↓ int: $(-\infty, 1.18) \cup (2.82, \infty)$

6. D: $\mathbb{R}$
   R: $\mathbb{R}$
   max: (0, 6)
   min: (2.33, -6.70)
   End: ∞ ; $-\infty$
   ↑ int: $(-\infty, 0)$ $(2.33, \infty)$
   ↓ int: (0, 2.33)

7. D: $\mathbb{R}$
R: $y \geq -5.85$
max: $(1.37, -0.65)$
min: $(-0.37, -5.85), (2, -1)$
End: ∞ ; ∞
↑ int: $(-0.37, 1.37)\ (2, \infty)$
↓ int: $(-\infty, -0.37)(1.37, 2)$

8. D: $\mathbb{R}$
R: $y \leq 0.06$
max: $(-1.11, 0.06)(0.84, -1.93)$
min: $(0.27, -2.13)$
End: $-\infty$; $-\infty$
↑ int: $(-\infty, -1.11)\ (.27, .84)$
↓ int: $(-1.11, .27)(.84, \infty)$