For each function below, find the intervals where \( f \) is increasing, the intervals where \( f \) is decreasing, the intervals where \( f \) is concave up, and the intervals where \( f \) is concave down. Sketch as accurate a graph as is possible. Assume all constants are positive.

1. \( f(x) = x^3 - ax + b \)
2. \( f(x) = x^3 + ax + b \)
3. \( f(x) = x^4 - ax^3 + b \)
4. \( f(x) = x^4 - ax^2 + b \)
5. \( f(x) = x^4 + ax^2 + b \)
6. \( f(x) = x^4 - ax + b \)
7. \( f(x) = x^5 - ax^4 + b \)
8. \( f(x) = x^5 - ax^3 + b \)
9. \( f(x) = x^5 + ax^2 + b \)
10. \( f(x) = x^5 - ax + b \)
11. (for this one, assume \( a < b \).) \( f(x) = (x - a)^2(x - b) \)