Information from a factored equation:

Use the provided template

For each of the included graphs determine:
1. Possible degree of the function
2. Value leading coefficient
3. Sign of leading coefficient
4. Where does the graph start
5. Where does the graph end
6. Value of the y-intercept
7. The value of the constant
8. What is (are) the x-intercepts (critical values)
9. Multiplicity and value of positive real roots
10. Multiplicity and value of negative real roots
11. Multiplicity and value of imaginary real roots
12. Number of times the graph change s direction
13. Number of peaks
14. Number of valleys

Sketch each graph:

1. $y = (x-2)^3$
2. $y = (x-2)(x+4)$
3. $y = (x-2)^2(x+1)^3$
4. $y = (x-5)(x-3)(x+1)(x+4)$
5. $y = (x-3)^2(x-1)^2(x+1)^3$
6. $y = (x-5)(x+2i)(x-2i)(x+1)^2$
7. $y = (x-3)(x-1)^3(x-3i)(x+3i)(x+2)^2$
8. $y = (2x-3)^2(4x-1)(x+3)$
9. $y = (2x+1)^3(3x-i)(3x+i)(x+2)^2$
10. $y = (2x-3)(3x+2)(2x+1)^2(x-2i)(x+2i)$