

Provide a clear and organized presentation. Show all of your work and completely simplify your answers. Provide exact values only. Clearly graph each of the following:

1. $y = 3x^5 - 5x^4 - 27x^3 + 45x^2$

2. $y = x^4 - 12x^2 + 27$

3. $y = -7x^3(x+2)^4(x-\phi)^5(x^2+4)$