**Plotting Cubics**

Pick one of these equations and plot it:

1. $y=x^{3}$
2. $y= -x^{3}$
3. $y=x^{3}-3x^{2}$
4. $y=-x^{3}+9x$
5. $y=x^{3}+x^{2}-6x$
6. $y=-x^{3}+x^{2}+6x$
7. $y=x^{3}+3x^{2}+3x+1$
8. $y=1-3x+3x^{2}-x^{3}$
9. $y=x^{3}-5x^{2}+3x+9$
10. $y=x^{3}-2x^{2}-5x+6$
11. $y=x^{3}+3x^{2}-x-3$
12. $y=6+5x-2x^{2}-x^{3}$
13. $y=x^{3}-2x^{2}-4x+8$
14. $y=-x^{3}+x^{2}+4x-4$

What do you notice?

What features of the graph can you pick out from the equation?