

Day 08 Writing Equations of Polynomial Functions

- When given the roots, make sure to use the opposite sign in each factor.
- If it is a tangent the factor needs an exponent of _____ and a terrace needs an exponent of _____
- If it is a fraction, make sure to “swing” the denominator (example, don’t write $(x - \frac{1}{2})$, write $(2x - 1)$).
- For imaginary solutions the factor will always be $(x^2 + \#)$.

1-9: Write an equation in factored form for each polynomial described. (assume a=1 if it is not given.)

1. Solutions at 2, -1 and a tangent at 5.

2. Solutions at 7 and a terrace at 1. a=4

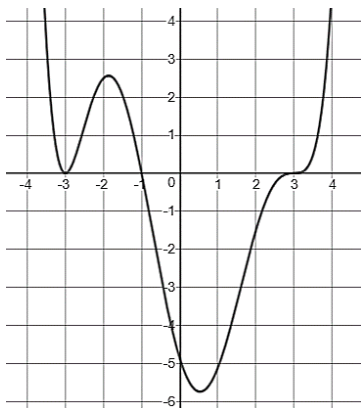
3. The roots are $0, \frac{2}{3}$, and -3

4. The zeros are $-\frac{1}{2}, 2$, and $\pm 4i$

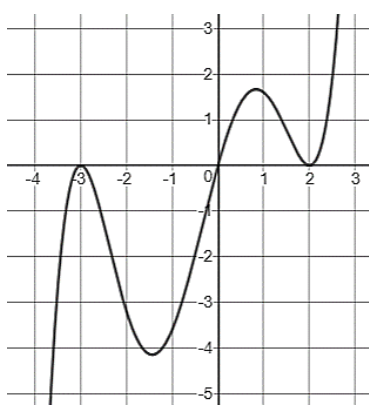
5. a= -3, solutions at $\pm 2i$, 6, and a tangent at -5

6. The roots are $\frac{2}{5}$ and $\pm\sqrt{2}$

7. a= .02



8. a= .1



9. a= .03

