## SM3 4.3 odd Answers

|  | tion | Sketch Graph | Extension |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. <br> \# of zeros: 7 <br> What are the zeros? $x=0,5$ |  |  <br> \# of x-intercepts: 2 <br> x-intercepts: $(0,0),(5,0)$ | The number of zeros/ $x$ intercepts don't match... Explain why? <br> The number of zeros comes from the equation. The number of zeros include the sum of the multiplicity of each factor. The x-intercepts are the real zeros you get after solving. |  |  |
| 3. | \# of zeros: 3 |  <br> \# of x-intercepts: 3 <br> x-intercepts: $(-6,0),(0,0),(1,0)$ | Fill in the information in the table. |  |  |
|  |  |  | Zero | Multiplicity | Touch/Cross |
|  |  |  | -6 0 1 | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & \hline \end{aligned}$ | cross <br> cross <br> cross |
|  | What are the zeros? $x=0,-6,1$ |  | Identify the end behavior$\begin{aligned} & \lim _{x \rightarrow-\infty} f(x)=\infty \\ & \lim _{x \rightarrow \infty} f(x)=-\infty \end{aligned}$ |  |  |
| 5. | \# of zeros: 3What are the zeros? $x=2,-1+\sqrt{3} i,-1-\sqrt{3} i$ |  |  <br> \# of $x$-intercepts: 1 x-intercepts: $(2,0)$ |  |  |

7. 

$$
\text { \# of zeros: } 2
$$

What are the zeros? $x=3 i,-3 i$


