北京景学校
Name：
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Mathematics－Elective Pre－Calc．－Senior 1 －Assignment \＃6－for Nov．3－p．1／2

I－Functions with Absolute value and Radicals．Sketch the graph of each of the following functions：$f_{1}$ to $f_{6}$ in the same picture as $f_{0}$ ．

$$
\begin{aligned}
& f_{0}(x)=\sqrt{x} ; f_{1}(x)=\sqrt{-x} ; f_{2}(x)=-\sqrt{-x} ; f_{3}(x)=\sqrt{|x|} \\
& f_{4}(x)=-\sqrt{3-x}+2 ; f_{5}(x)=\sqrt{|x-3|}+2 ; f_{6}(x)=\sqrt{4 x-8}-2
\end{aligned}
$$

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Mathematics－Elective Pre－Calc．－Senior 1 －Assignment \＃6－for Nov．3－p．2／2
II－Study the symmetries of each of the following functions ：find their axes or center of symmetry and verify by showing the appropriate calculations ：
$y=x^{3}-6 x^{2}+12 x-9$
$y=x^{4}-2 x^{2}+1$
$y=\frac{1}{8}\left(x^{3}+3 x^{2}-13 x-15\right)$
$y=\frac{x^{2}-2 x-3}{x^{2}-2 x-8}$

