1. $y = -8x^4 + 2x^3 - 4x^2 + 2x - 9$

2. $y = 9x^5 + 3x^4 - 2x^3 + 5$

3. $y = 2x^3 - 3x^4 + 5x^2 - 3x^5 + 7x + 2$

4. $= 4x^2 - 6x^6 + 7x - 9$

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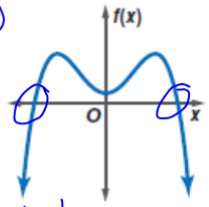
4 For each graph,

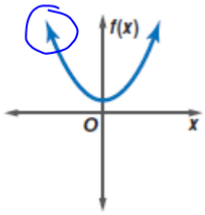
- describe the end behavior,
- determine whether it represents an odd-degree or an even-degree polynomial function, and
- state the number of real zeros.

$f(x) \rightarrow$ ___ (approaches), as $x \rightarrow$ (approaches)

a.



b.



$f(x) \rightarrow \underline{\infty}$, as $x \rightarrow \infty$

$f(x) \rightarrow \underline{\infty}$, as $x \rightarrow -\infty$

even

0

end behavior

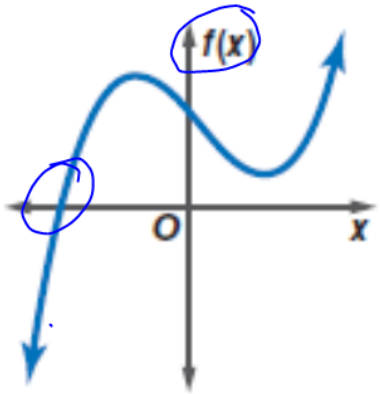
$f(x) \rightarrow \underline{-\infty}$, as $x \rightarrow \infty$ (right side/arrow)

$f(x) \rightarrow \underline{-\infty}$, as $x \rightarrow -\infty$ (left side/arrow)

even

2

4A.



end behavior
odd/even
# of real zeros

$f(x) \to \underline{\infty}$, as $x \to \infty$
$f(x) \to \underline{-\infty}$, as $x \to -\infty$
odd

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