① $y = 8x^4 + 3x^3 + 2x^2 - x + 5$

② $y = -2x^3 + 4x^2 + 3$

③ $y = 8x - 9x^4 + 3x^2 + 8$

④ $y = 2x^4 + 3x^3 + 2x^5 - 3x^2 + x + 1$

4 For each graph,

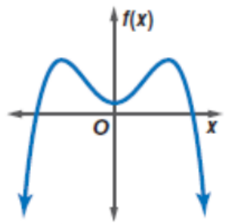
a. • describe the end behavior, $f(x) \to$ ____, as $x \to$

b. • determine whether it represents an odd-degree or an even-degree polynomial function, and

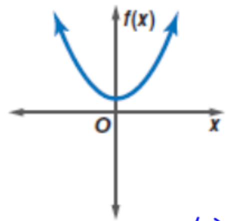
approaches   approaches

c. • state the number of real zeros.

a.



b.



a. end behavior

$f(x) \to -\infty$, as $x \to \infty$ (right side)

$f(x) \to -\infty$, as $x \to -\infty$ (left side)

b. even

c. 2

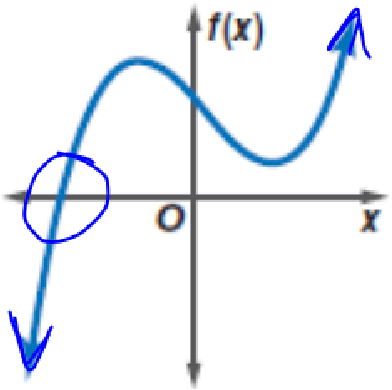
a. $f(x) \to \infty$, as $x \to \infty$

$f(x) \to \infty$, as $x \to -\infty$

b. even

c. 0

4A.



end behavior

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

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

odd

1 real zero

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