

In Exercises 25-28, describe the end behavior of the polynomial function using $\lim_{x \rightarrow \infty} f(x)$ and $\lim_{x \rightarrow -\infty} f(x)$.

25. $f(x) = 3x^4 - 5x^2 + 3$

26. $f(x) = -x^3 + 7x^2 - 4x + 3$

27. $f(x) = 7x^2 - x^3 + 3x - 4$

28. $f(x) = x^3 - x^4 + 3x^2 - 2x + 7$

odd / - $\curvearrowright$

Even		odd	
+	$\uparrow\uparrow$	$\downarrow\uparrow$	
-	$\downarrow\downarrow$	$\uparrow\downarrow$	

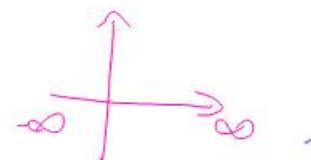
$\lim_{x \rightarrow \infty} f(x) = -\infty$ $\lim_{x \rightarrow -\infty} f(x) = \infty$
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25. even degree / + a

$$\lim_{x \rightarrow \infty} f(x) = \infty$$

$$\lim_{x \rightarrow -\infty} f(x) = \infty$$

$\uparrow\uparrow$ $\curvearrowright$



28. even / - a

$\curvearrowright$

down, down.

$\lim_{x \rightarrow \infty} f(x) = -\infty$ $\lim_{x \rightarrow -\infty} f(x) = -\infty$
