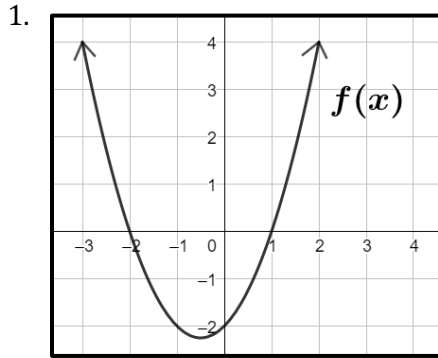
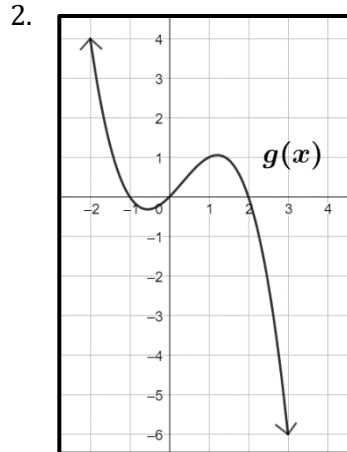


**Directions:** For 1–8, use the graphs below to write limit statements for the end behavior for each function.



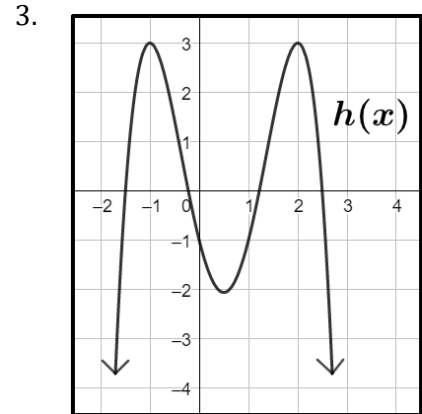
**Left:**

**Right:**



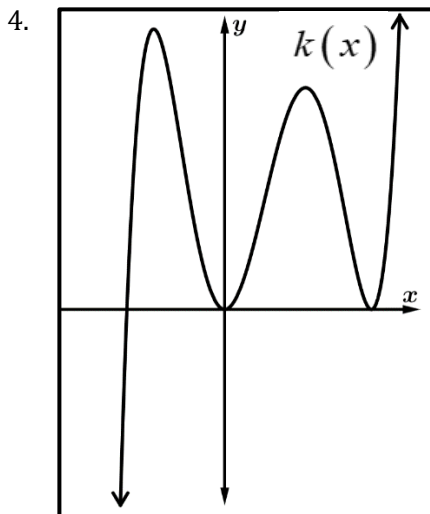
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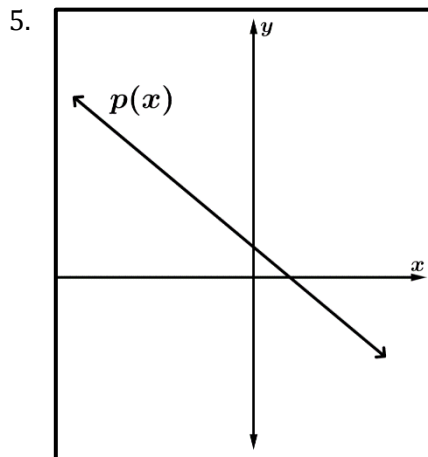
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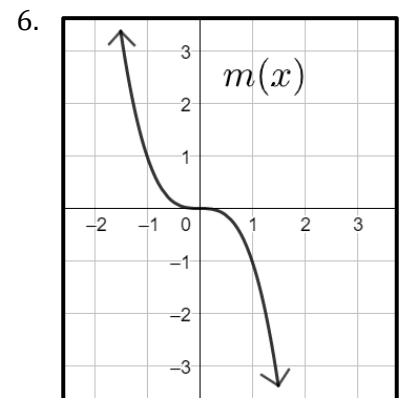
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**Directions:** Determine the end behavior for the following polynomials.

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

**Left:**

**Right:**

8.  $g(x) = 3x^6$

**Left:**

**Right:**

9.  $y = 3(x - 1)^5$

**Left:**

**Right:**

10.  $h(x) = 8 - 3x^4$

**Left:**

**Right:**

11.  $k(x) = 8x^2 + 4 - x^5$

**Left:**

**Right:**

12.  $m(x) = 2x(x - 1)(x + 6)$

**Left:**

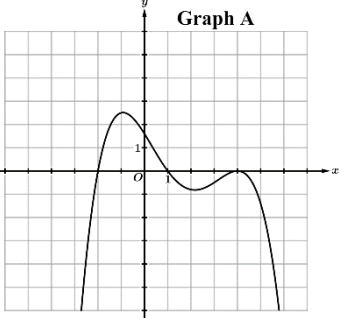
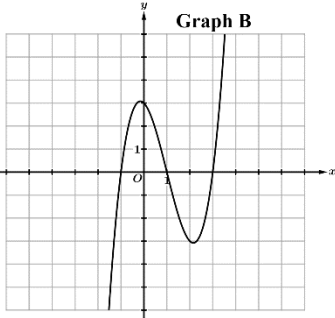
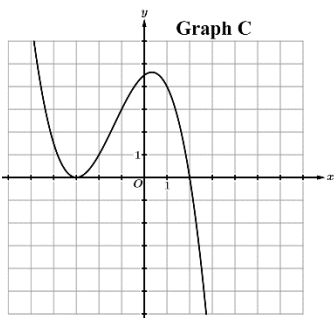
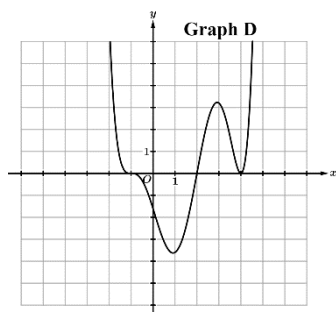
**Right:**

13.  $p(x) = -2x(x - 3)^2$

**Left:**

**Right:**

14. The graphs, equations, and limit statements for four polynomial functions are below. Match the graphs and equations with the correct limit statements.

<b>Limit Statements</b>			
I. $\lim_{x \rightarrow -\infty} f(x) = -\infty$	II. $\lim_{x \rightarrow -\infty} g(x) = -\infty$	III. $\lim_{x \rightarrow -\infty} h(x) = \infty$	IV. $\lim_{x \rightarrow -\infty} k(x) = \infty$
$\lim_{x \rightarrow \infty} f(x) = -\infty$	$\lim_{x \rightarrow \infty} g(x) = \infty$	$\lim_{x \rightarrow \infty} h(x) = -\infty$	$\lim_{x \rightarrow \infty} k(x) = \infty$
<b>Function Equations</b>			
1. $y = x^3 + bx^2 + cx + d$	2. $y = -\frac{1}{4}x^3 + bx^2 + d$	3. $y = -\frac{1}{20}x^4 + cx + d$	4. $y = \frac{1}{20}x^4 + bx^2 + d$
<b>Graphs</b>			
 <p style="text-align: center; margin-top: 5px;">Graph A</p>	 <p style="text-align: center; margin-top: 5px;">Graph B</p>	 <p style="text-align: center; margin-top: 5px;">Graph C</p>	 <p style="text-align: center; margin-top: 5px;">Graph D</p>

<b>Limit Statement: I</b>	<b>Limit Statement: II</b>	<b>Limit Statement: III</b>	<b>Limit Statement: IV</b>
<b>Equation:</b>	<b>Equation:</b>	<b>Equation:</b>	<b>Equation:</b>
<b>Graph:</b>	<b>Graph:</b>	<b>Graph:</b>	<b>Graph:</b>