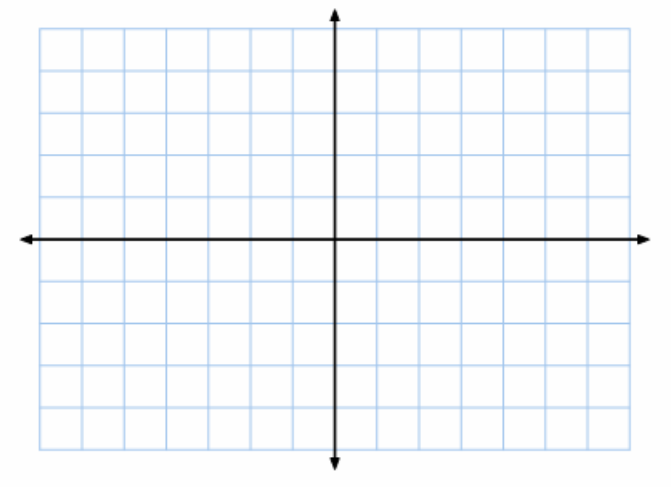
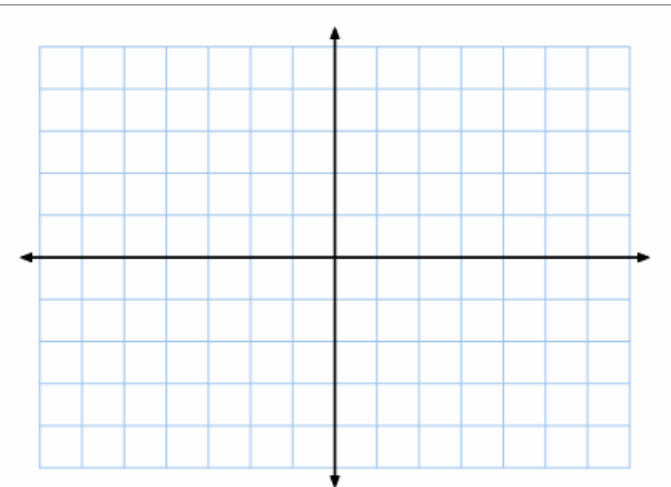
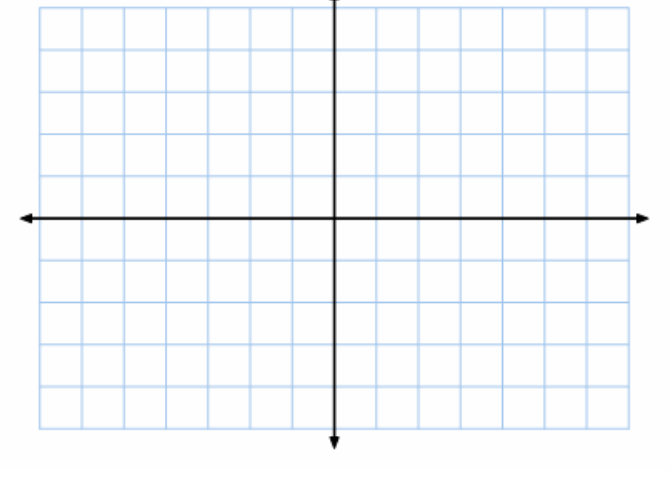


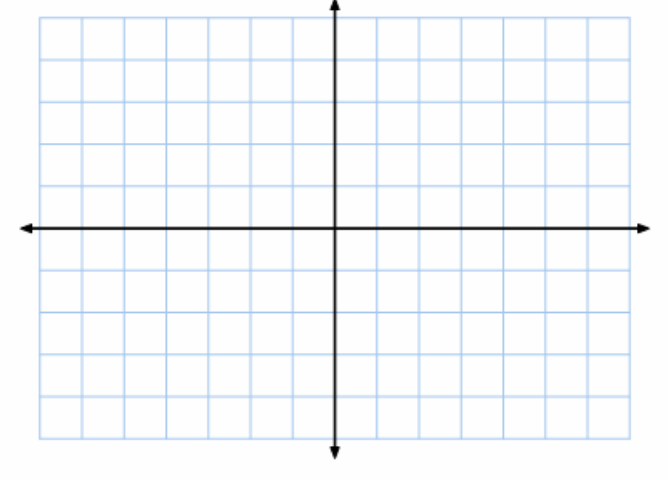
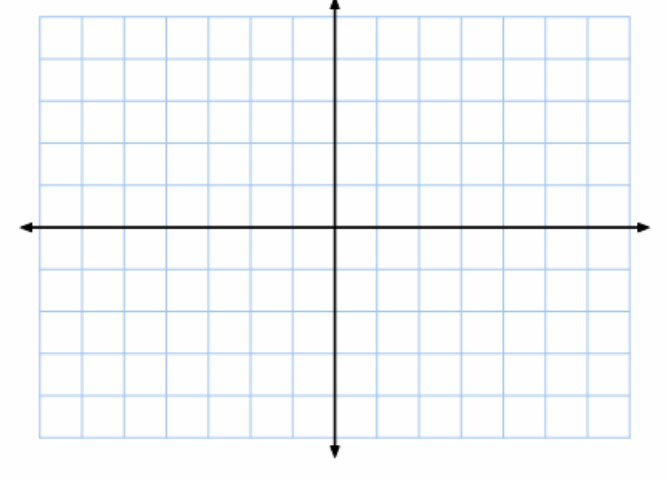
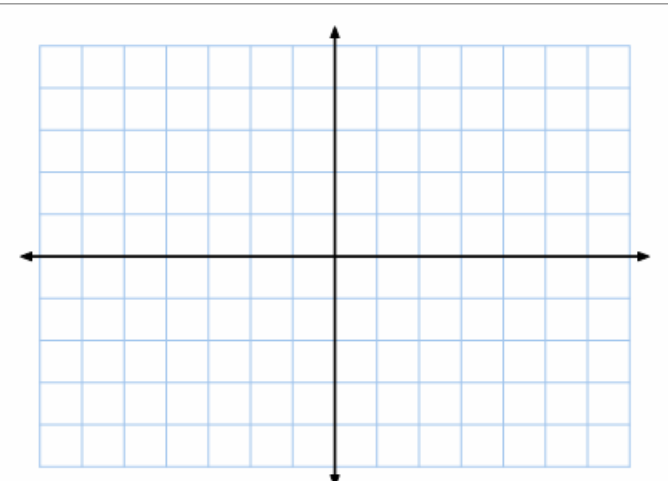
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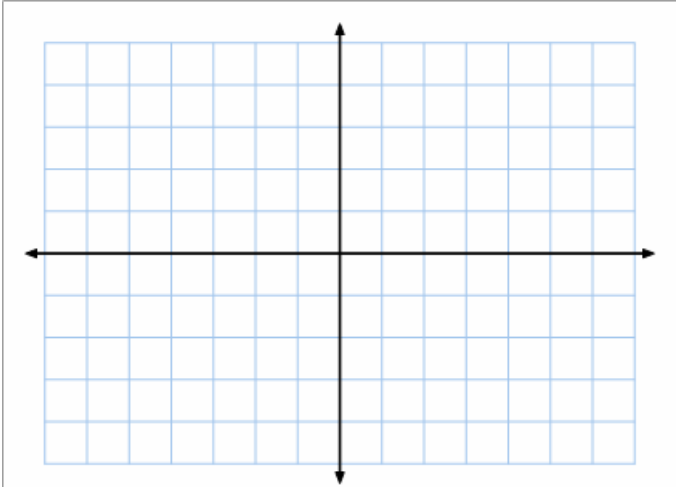
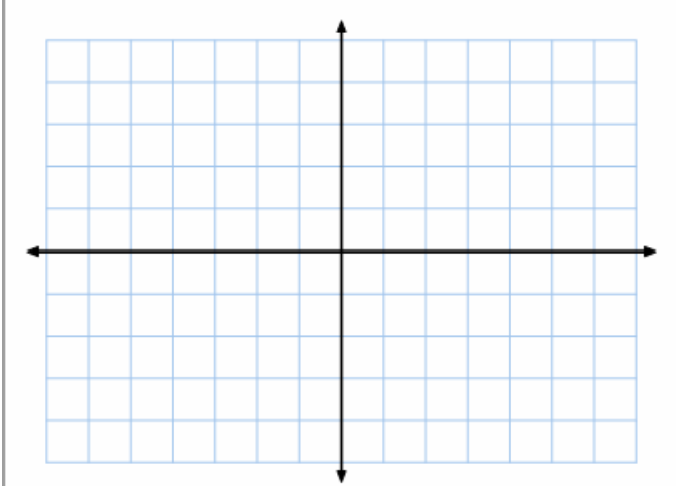
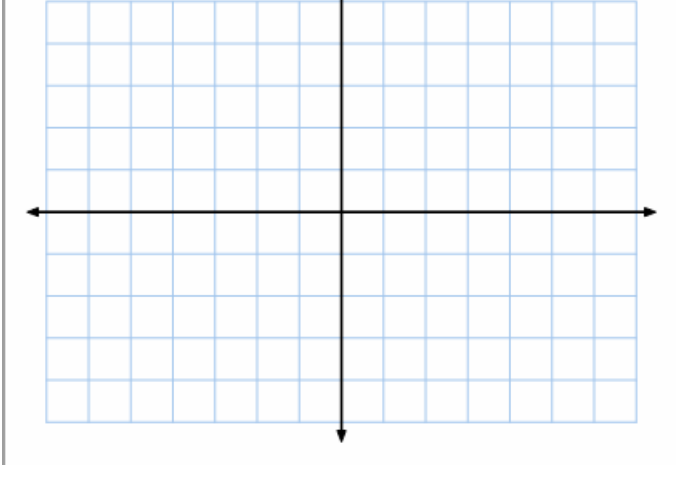
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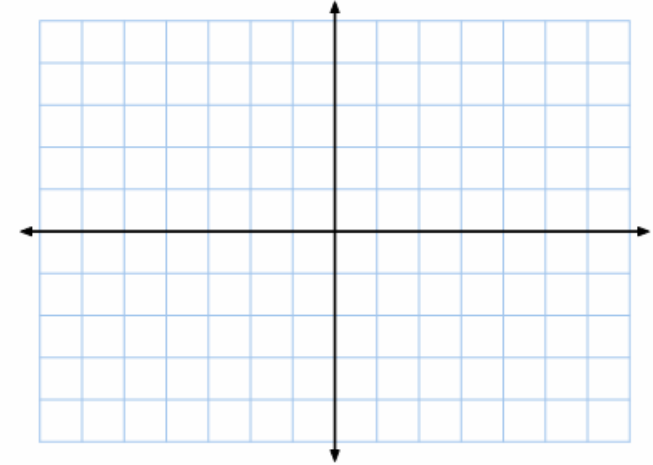
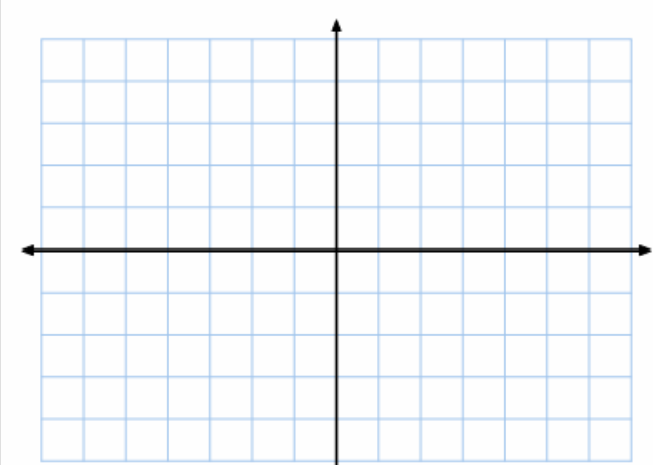
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Sketch Graph Given Equation

Equation	Graph
<p><b>1) <math>f(x) = x^3 - 2x</math></b></p> <p>a) The degree is _____</p> <p>b) End behavior:</p> <ul style="list-style-type: none"><li>• as <math>x \rightarrow \infty, f(x) \rightarrow</math> _____</li><li>• as <math>x \rightarrow -\infty, f(x) \rightarrow</math> _____</li></ul> <p>c) The real roots occur when <math>x =</math> _____</p> <ul style="list-style-type: none"><li>• Roots bounce at <math>x =</math> _____</li><li>• Roots cross the <math>x</math>-axis at <math>x =</math> _____</li></ul>	
<p><b>2) <math>f(x) = -(x + 1)(x - 2)(x - 3)</math></b></p> <p>a) The degree is _____</p> <p>b) End behavior:</p> <ul style="list-style-type: none"><li>• as <math>x \rightarrow \infty, f(x) \rightarrow</math> _____</li><li>• as <math>x \rightarrow -\infty, f(x) \rightarrow</math> _____</li></ul> <p>c) The real roots occur when <math>x =</math> _____</p> <ul style="list-style-type: none"><li>• Roots bounce at <math>x =</math> _____</li><li>• Roots cross the <math>x</math>-axis at <math>x =</math> _____</li></ul>	
<p><b>3) <math>f(x) = x^5 - 37x^3 + 36x</math></b></p> <p>a) The degree is _____</p> <p>b) End behavior:</p> <ul style="list-style-type: none"><li>• as <math>x \rightarrow \infty, f(x) \rightarrow</math> _____</li><li>• as <math>x \rightarrow -\infty, f(x) \rightarrow</math> _____</li></ul> <p>c) The real roots occur when <math>x =</math> _____</p> <ul style="list-style-type: none"><li>• Roots bounce at <math>x =</math> _____</li><li>• Roots cross the <math>x</math>-axis at <math>x =</math> _____</li></ul>	

Equation	Graph
<b>4) <math>f(x) = -9x^3 - 12x^2 - 4x</math></b>	
<b>5) <math>f(x) = -4x^4 - 6x^3 + 40x^2</math></b>	
<b>6) <math>f(x) = 5(x - 2)^2(x + 2)(x + 2)</math></b>	

Equation	Graph
<b>7) <math>f(x) = -4x(5x - 3)(2x + 5)^3(x - 1)</math></b>	
<b>8) <math>f(x) = -(x + 1)^2(x - 1)^3</math></b>	
<b>9) <math>f(x) = -5x^4 - x^5</math></b>	

Equation	Graph
<b>10) <math>f(x) = x(x + 1)(x^2 - 4)(x - 3)</math></b>	
<b>11) <math>f(x) = -5x^2 + 30x - 45</math></b>	
<b>12) <math>f(x) = (x^2 - 9)^2(x - 1)^3(x - 3)^4(x - 5)^5</math></b>	