



## Polynomial Inequalities - Three Factors - Sign Change at a Point

<p>1</p> <p>Does the sign of this polynomial change at <math>x = 0</math>?</p> <p><math>(x + 4)(x + 3)x</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A No</td> <td style="width: 50%; text-align: center;">B Yes</td> </tr> </table>	A No	B Yes	<p>2</p> <p>Does the sign of this polynomial change at <math>x = -1</math>?</p> <p><math>(x + 4)(x - 1)(x - 2)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A Yes</td> <td style="width: 50%; text-align: center;">B No</td> </tr> </table>	A Yes	B No
A No	B Yes				
A Yes	B No				
<p>3</p> <p>Does the sign of this polynomial change at <math>x = -4</math>?</p> <p><math>(x + 4)(x + 2)(x + 1)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A No</td> <td style="width: 50%; text-align: center;">B Yes</td> </tr> </table>	A No	B Yes	<p>4</p> <p>Does the sign of this polynomial change at <math>x = -3</math>?</p> <p><math>(x + 3)(x + 1)(x - 4)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A Yes</td> <td style="width: 50%; text-align: center;">B No</td> </tr> </table>	A Yes	B No
A No	B Yes				
A Yes	B No				
<p>5</p> <p>Does the sign of this polynomial change at <math>x = 1</math>?</p> <p><math>(x + 2)(x - 3)(x - 4)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A No</td> <td style="width: 50%; text-align: center;">B Yes</td> </tr> </table>	A No	B Yes	<p>6</p> <p>Does the sign of this polynomial change at <math>x = -2</math>?</p> <p><math>(x + 2)(x - 1)(x - 3)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A No</td> <td style="width: 50%; text-align: center;">B Yes</td> </tr> </table>	A No	B Yes
A No	B Yes				
A No	B Yes				
<p>7</p> <p>Does the sign of this polynomial change at <math>x = -3</math>?</p> <p><math>(x + 2)(x - 1)(x - 4)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A Yes</td> <td style="width: 50%; text-align: center;">B No</td> </tr> </table>	A Yes	B No	<p>8</p> <p>Does the sign of this polynomial change at <math>x = 0</math>?</p> <p><math>(x + 1)x(x - 4)</math></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">A No</td> <td style="width: 50%; text-align: center;">B Yes</td> </tr> </table>	A No	B Yes
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