



Rational Functions and Asymptotes - Hole at Location (Factored)

<p>1</p> <p style="text-align: center;">Is there a hole at $x=1$ when this polynomial is divided by this binomial?</p> $f(x) = \frac{x(x-1)(x-2)}{(x-1)}$ <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;">A</td> <td style="width: 50%; padding: 5px;">B</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">No</td> <td style="padding: 5px;">Yes</td> </tr> </table>	A	B	No	Yes	<p>2</p> <p style="text-align: center;">Is there a hole at $x=2$ when this polynomial is divided by this binomial?</p> $f(x) = \frac{(x+2)(x-2)(x-3)}{(x-2)}$ <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;">A</td> <td style="width: 50%; padding: 5px;">B</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">No</td> <td style="padding: 5px;">Yes</td> </tr> </table>	A	B	No	Yes
A	B								
No	Yes								
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<p>3</p> <p style="text-align: center;">Is there a hole at $x=-2$ when this polynomial is divided by this binomial?</p> $f(x) = \frac{(x+2)(x-4)}{(x+2)}$ <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;">A</td> <td style="width: 50%; padding: 5px;">B</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">No</td> <td style="padding: 5px;">Yes</td> </tr> </table>	A	B	No	Yes	<p>4</p> <p style="text-align: center;">Is there a hole at $x=3$ when this polynomial is divided by this binomial?</p> $f(x) = \frac{(x+2)(x-2)(x-3)}{(x-3)(x-4)}$ <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 5px;">A</td> <td style="width: 50%; padding: 5px;">B</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 5px;">Yes</td> <td style="padding: 5px;">No</td> </tr> </table>	A	B	Yes	No
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