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$$(x-3)$$
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Now we have a lower degree

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Now we repeat this process.

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Once the degree of what is being divided is smaller than the degree we are dividing by, the process is complete:

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are dividing by, the process is complete: $2x^3 - 2x^2 + 5x + 1$ 42

Conclusion: $\frac{2x^3 - 3x^2 + 5x + 1}{x - 3} = 2x^2 + 3x + 14 + \frac{43}{x - 3}$