# Article information:

Quadratic Function - Standard Form, Formula, Examples
<https://www.cuemath.com/calculus/quadratic-functions/>

# Article summary:

1. A quadratic function is a polynomial function of degree 2, with the highest exponent of the variable being two.

2. The standard form of a quadratic function is f(x) = ax^2 + bx + c, where a, b, and c are real numbers with a ≠ 0.

3. The graph of a quadratic function is a parabola that opens upwards or downwards depending on the value of 'a'.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article provides a comprehensive overview of quadratic functions, including their definition, standard form, formulas, different forms, domain and range, graphing, and examples. However, the article lacks depth in some areas and may be biased towards promoting the use of quadratic functions in various fields.

One potential bias is the article's emphasis on the usefulness of quadratic functions in engineering and science without acknowledging their limitations or potential drawbacks. The article also presents only one example of real-world application (rocket launch), which may not accurately represent the full scope of uses for quadratic functions.

Additionally, while the article briefly mentions that a quadratic function can have a maximum or minimum value at its vertex, it does not explore how to determine whether it is a maximum or minimum or provide any real-world examples where this information would be useful.

The article also lacks discussion on the limitations of using the quadratic formula to solve for zeroes in non-integer or non-real numbers. It could benefit from exploring alternative methods for finding zeroes in these cases.

Furthermore, while the article provides steps for graphing a quadratic function, it does not discuss how to interpret or analyze the resulting graph beyond identifying its shape as a parabola.

Overall, while the article provides a good introduction to quadratic functions and their various forms and applications, it could benefit from more depth and exploration of potential biases and limitations.

# Topics for further research:

* How to determine whether a vertex of a quadratic function is a maximum or minimum
* Limitations of using the quadratic formula to solve for non-integer or non-real zeroes
* Alternative methods for finding zeroes in quadratic functions
* Interpretation and analysis of quadratic function graphs beyond identifying their shape
* Critiques of using quadratic functions in engineering and science
* Real-world applications of quadratic functions beyond rocket launches

# Report location:

<https://www.fullpicture.app/item/0ec5a24cdd4a183ba5e2c747d152e5f9>