Practice worksheet | Differentiation and applications

Inflection points

Name: _____ Date: _____

6 questions | 16 marks

1. Find the inflection point of $y = x^3 + 2x$. [2 marks]

2. Explain why $y = x^4 + 1$ has no inflection point. [2 marks]

3. Find the inflection points of $y = x^4 - 4x^3$. [4 marks]

4. Find the tangent at the inflection of $y = x^3 - 3x^2$. [3 marks]

5. Does $y = e^x$ have an inflection? Justify. [2 marks]

6. Classify the origin of $y = x^5$ as stationary/nonstationary and maximum/minimum/inflection. [3 marks]