

7. [6 points] A curve \mathcal{C} gives y as an implicit function of x . This curve passes through the point $(-2, 1)$ and satisfies

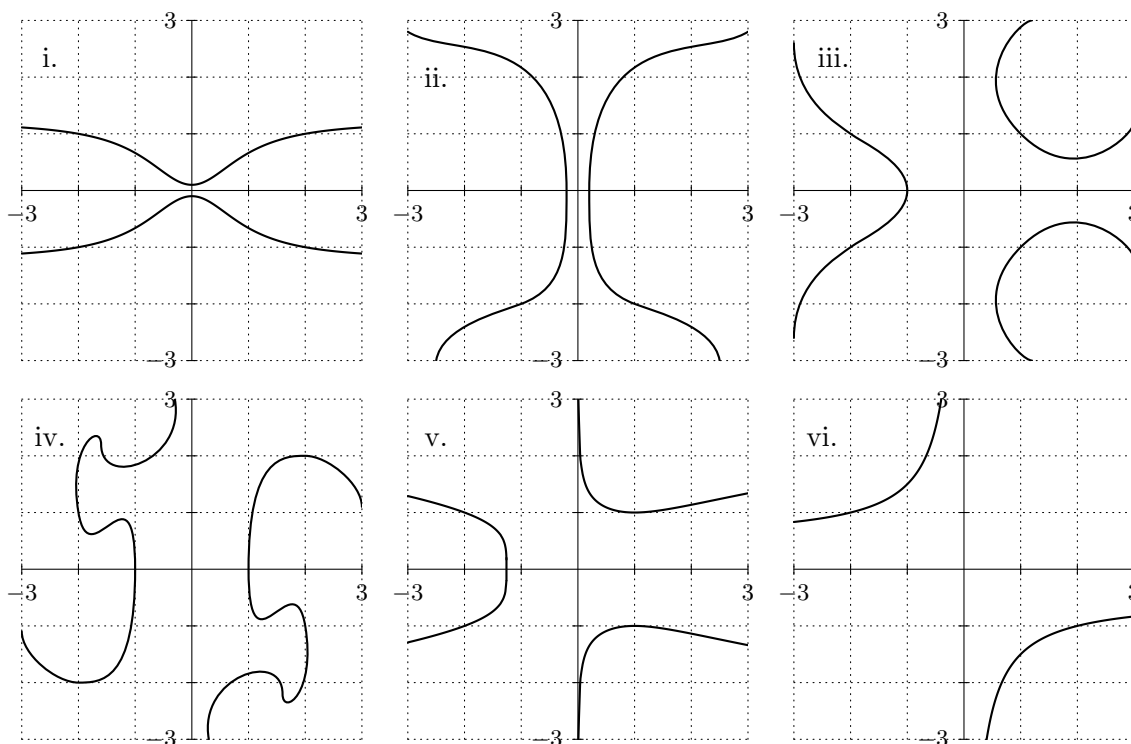
$$\frac{dy}{dx} = \frac{x^2 - y^4}{2xy^3}.$$

- a. [1 point] One of the values below is the slope of the curve \mathcal{C} at the point $(-2, 1)$. Circle that one value.

Answer: The slope at $(-2, 1)$ is

$-\frac{3}{16}$ $-\frac{1}{4}$ $-\frac{3}{8}$ $-\frac{1}{2}$ $-\frac{5}{8}$ $-\frac{3}{4}$ $-\frac{15}{16}$

- b. [5 points] One of the following graphs is the graph of the curve \mathcal{C} . Which of the graphs i-vi is it? To receive any credit on this question, you must circle your answer next to the word “Answer” below.



Remember: To receive any credit on this question, you must circle your answer next to the word “Answer” below.

Answer: i. ii. iii. iv. v. vi.