## Vector Fields



## Question

Consider the vector field  $\vec{F}(x,y) = \langle 1 - \cos(y), 1 - \cos(y) \rangle$  in the plane. Which of these features does  $\vec{F}$  have?

- I. Every vector in the field has the same direction.
- II. Every vector in the field points away from the origin.
- III. The field is periodic in the *y*-direction.
- IV. The field is zero along horizontal lines.
- A. I and III only
- B. II and IV only
- C. I and IV only
- D. All of them
- E. None of these