## 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

