

Exercise 23.43

In a certain region of space, the electric potential is $V(x, y, z) = Axy - Bx^2 + Cy$, where A , B , and C are positive constants.

Correct**Part C**

Calculate the z -component of the electric field.

Express your answer in terms of the given quantities.

$$E_z = 0$$

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At which point is the electric field equal to zero?

- ☐ $x = 0, y = 0, z = 0$
- ☐ $x = -C/A, y = 0, z = -2BC/A^2$
- ☒ $x = -C/A, y = -2BC/A^2, z = C/A$

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