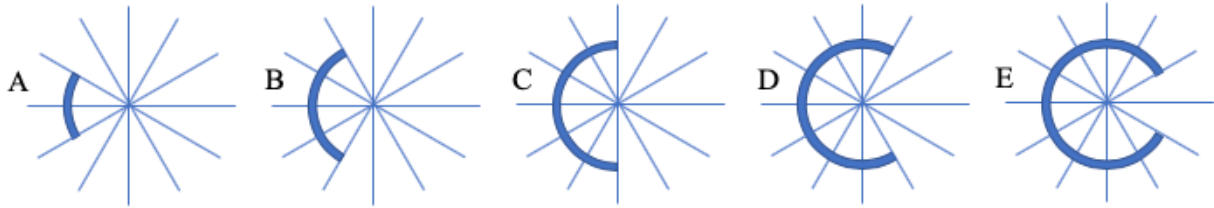


Note: This question came from (or was inspired by) the “Frenley Physics” YouTube site:

FR 6: In each of the above five cases, an arc carries a uniformly-distributed, positive charge (with center of curvature at P). The lines make 30° angles.



a.) Rank the cases, from highest to lowest, based on the strength of the electric field at Point P, assuming all five cases have the same *linear charge density*. Explain your reasoning.

b.) Rank the cases based on the strength of the electric field at Point P, assuming all five cases have the same *charge*. Explain your reasoning.