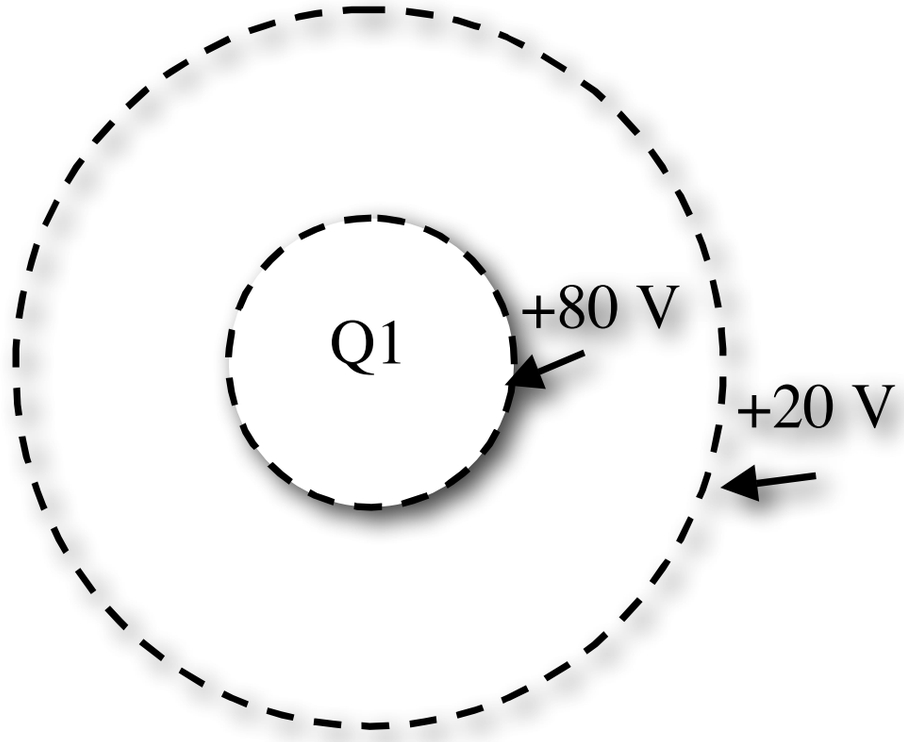
The equipotential contours around two charges (Q1 and Q2) are shown. What can you conclude?

Situation 1



1: Q1 > Q2 > 0

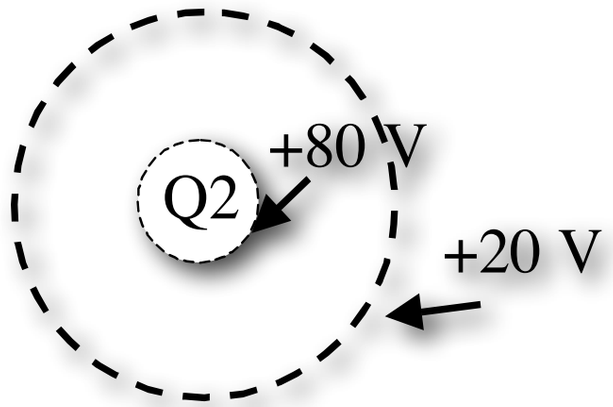
2: Q2 > Q1 > 0

3: Q1 < Q2 < 0

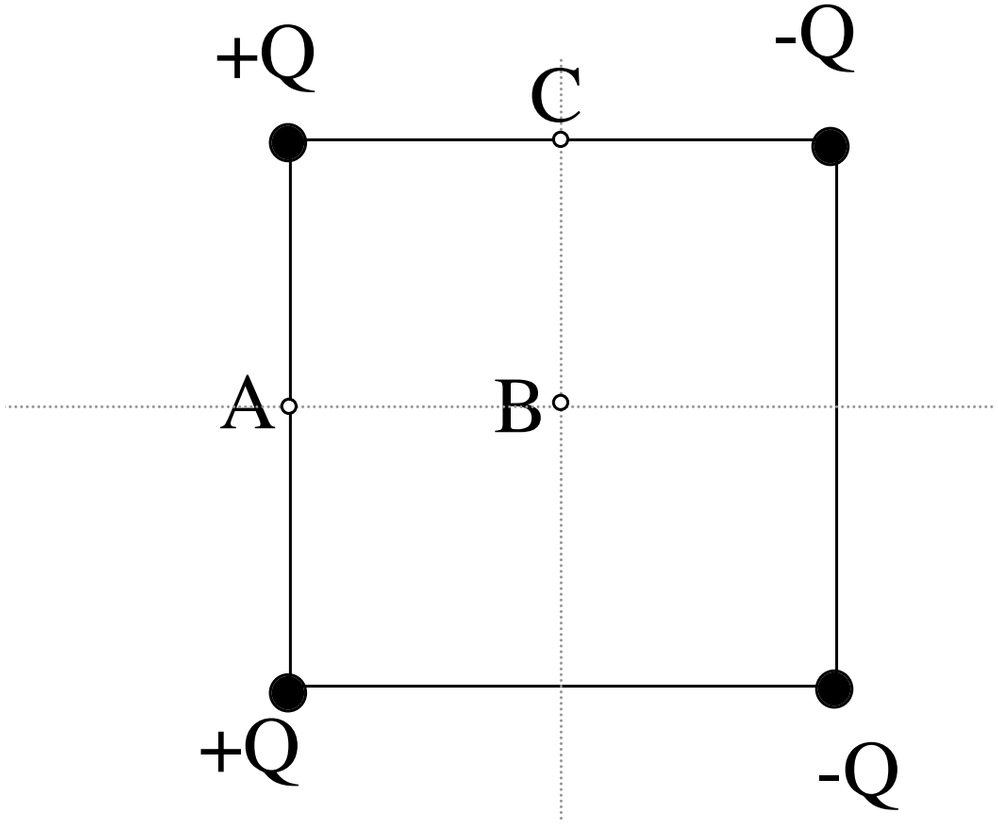
4: Q2 < Q1 < 0

5: Not enough information given.

Situation 2

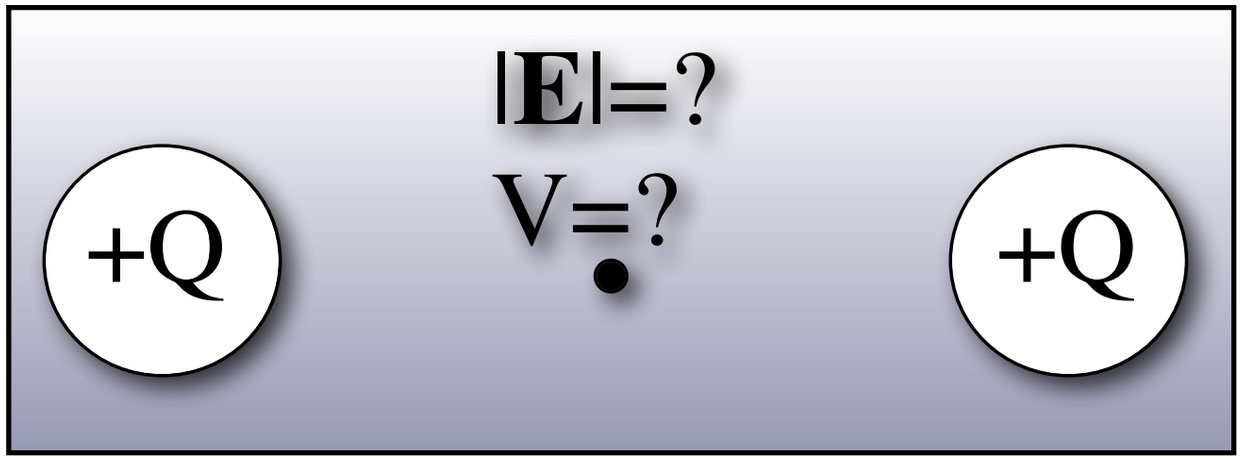


In the figure, there are 4 point-charges (same magnitude, signs shown) arranged in a square. (Assume potential V=0 at infinity) At which of the "mid-points" (A, B, C) is the potential 0?



1: A (only)
2: B (only)
3: C (only)
4: B and C
5: None of these

Two identical charges, +Q and +Q, are fixed in space. What is the magnitude of the E field, and the value of the voltage, at the midpoint between them? (Assume the potential is zero at infinity.)



1: **E**=0, V non-zero.

2: |**E**| non-zero, V = 0

3: |**E**|=0, V=0

4: Both are non-zero

5: Not enough info

Consider two isolated spherical conductors each having net charge Q. The spheres have radii a and b,where b>a. Which sphere has the higher potential?

1. the sphere of radius a
2. the sphere of radius b
3. They have the same potential.