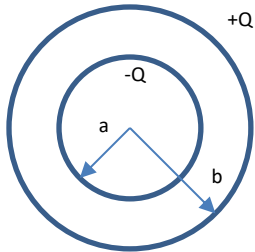## EXAMPLE: SPHERICAL CAPACITOR (USING CALCULUS)

What is the capacitance of two concentric spherical shells, one of radius *a* and one of radius *b*, with *a* < *b*? Consider the charge on each sphere to be +/- *Q*.

EXAMPLE: CYLINDRICAL CAPACITOR (USING CALCULUS)

What is the capacitance per unit length of two concentric, infinitely long cylindrical shells, one of radius *a*, and one of radius *b*, with *a* < *b*. Consider the charge on each cylinder to be +/- *Q*.