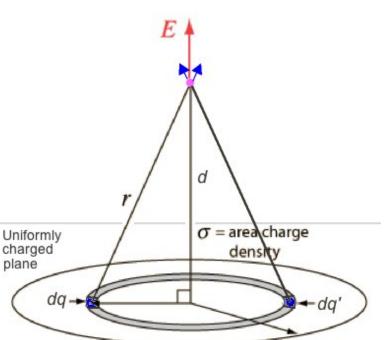
Consider the electric field near a large sheet of uniform positive charge, σ . What direction does it point? How do you know?

- 1. up
- 2. down
- 3. left
- 4. right
- 5. None of these





Consider the electric field near a large sheet of uniform charge, σ . Which of these has the right dimensions? $([\sigma] = Q/A)$ 1. $E = \frac{2\pi k_C \sigma}{d^3}$ $2. \quad E = \frac{2\pi k_C \sigma}{d^2}$ 3. $E = \frac{2\pi k_c \sigma}{d}$ Uniformly charged plane dg-4. $E = 2\pi k_c \sigma$

d

 $\sigma = area charge$

density

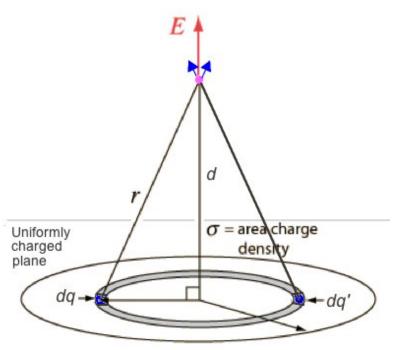
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5. None of these

Consider the electric potential near a large sheet of uniform charge, σ . If $\sigma > 0$, how does the potential change as you go farther away from the sheet?

- 1. Increases
- 2. Decreases
- 3. Stays the same
- 4. You can't tell without more information





A positive charge might be placed near a uniform sheet of charge at one of three spots in a region where there is a uniform electric field. How do the electric potential, *V*, on the charge at positions 1, 2, and 3 compare?

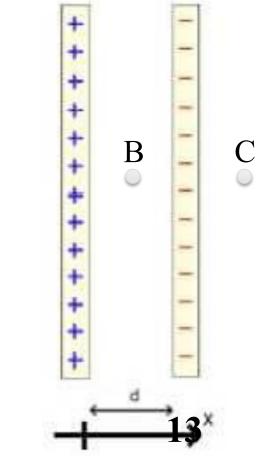
- *I. V* is greatest at 1
- 2. V is greatest at 2
- 3. *V* is greatest at 3
- 4. *V* is 0 at all 3 spots
- 5. V is = at all 3 spots but not = 0.

4	4	4	4	4
€	♦	3	4	+
			4	
+	1	+	2	•
			+	

Two large parallel sheets of charge are separated by a distance d, small compared to the size of the sheets. The distance d is small enough that the sheets can be treated as if they were infinite in extent.

Where do you expect the E field to point at the position A?

- 1. It should point to the left.
- 2. It should be essentially 0.
- 3. It should point to the right.



А

