

## Class Pace – Equations

How is the pace at which I go through equations in the power point documents?

1. Too Fast
2. Too Slow
3. Okay

## Class Pace – Concepts

How is the pace at which I go through concepts during a presentation?

1. Too Fast
2. Too Slow
3. Okay

## Class Pace – PRS

Do I spend enough time discussing the correct answers to the PRS questions?

1. Not enough time
2. Too much time
3. Okay

## Class Pace – Table Problems

Do you have enough time to do the table based in class problems?

1. Not enough time
2. Too much time
3. Okay

## Preparation

Do you read before coming to class?

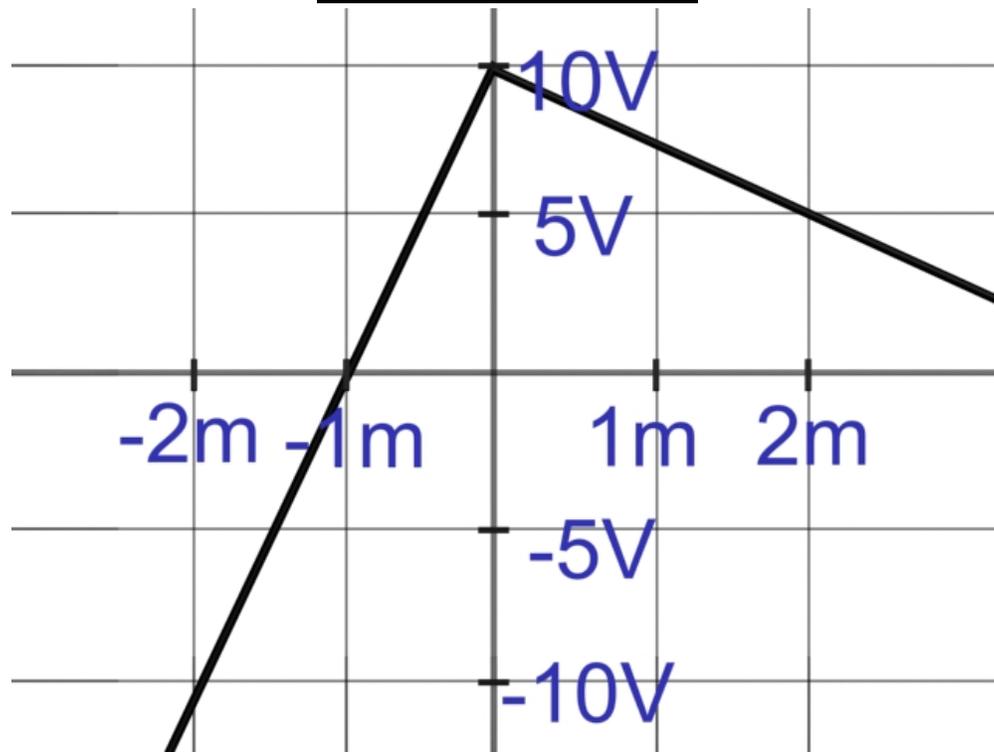
1. Yes, summary & reading
2. Yes, summary only
3. I scan the summary
4. No, not at all

# Note Taking

Do you take notes in class?

1. Yes, on lecture print outs
2. Yes, in “traditional” way
3. No

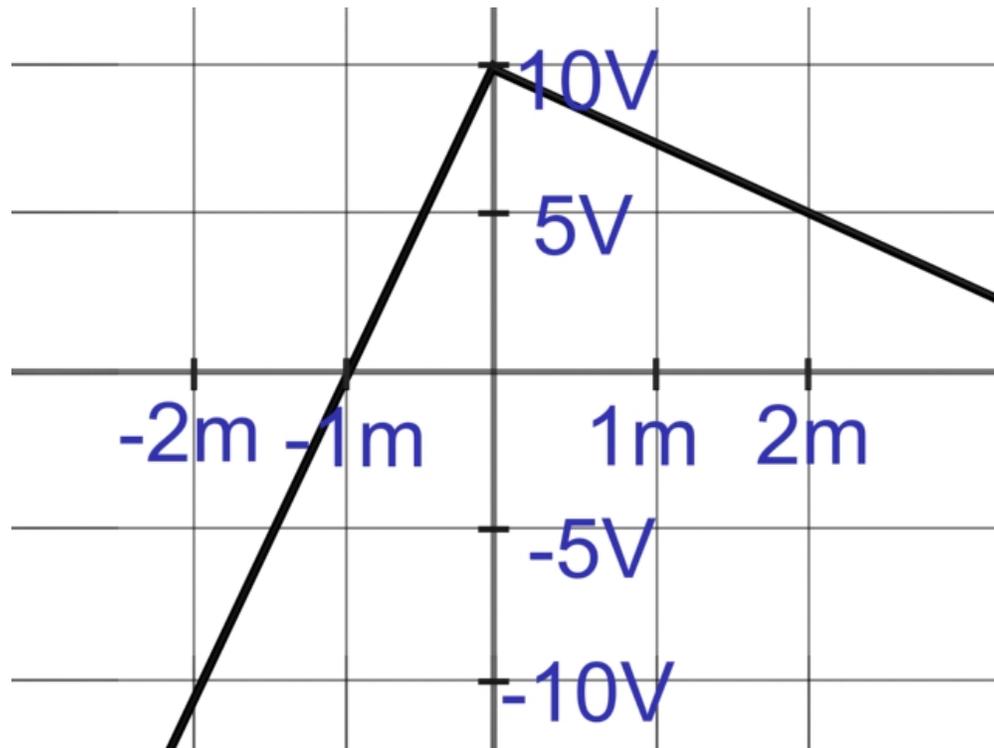
## E from V



The graph above shows a potential  $V$  as a function of  $x$ . The *magnitude* of the electric field for  $x > 0$  is

1. larger than that for  $x < 0$
2. smaller than that for  $x < 0$
3. equal to that for  $x < 0$
4. I don't know

E from V

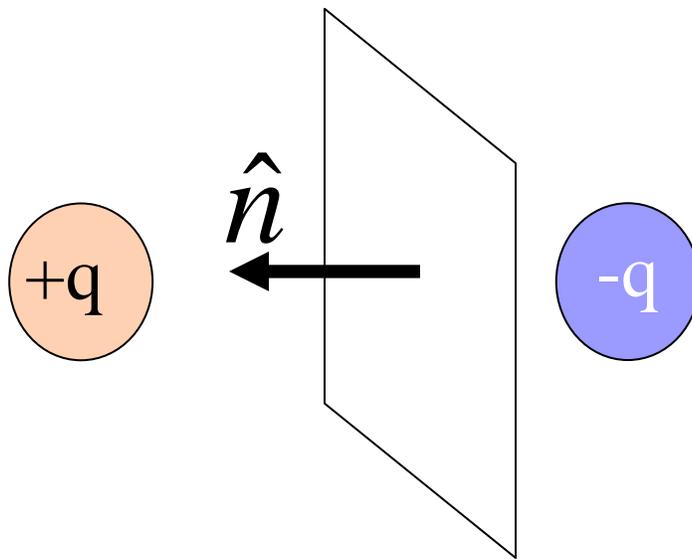


The graph above shows a potential  $V$  as a function of  $x$ . Which is true?

1.  $E_{x > 0}$  is  $> 0$  and  $E_{x < 0}$  is  $> 0$
2.  $E_{x > 0}$  is  $> 0$  and  $E_{x < 0}$  is  $< 0$
3.  $E_{x > 0}$  is  $< 0$  and  $E_{x < 0}$  is  $< 0$
4.  $E_{x > 0}$  is  $< 0$  and  $E_{x < 0}$  is  $> 0$
5. I don't know

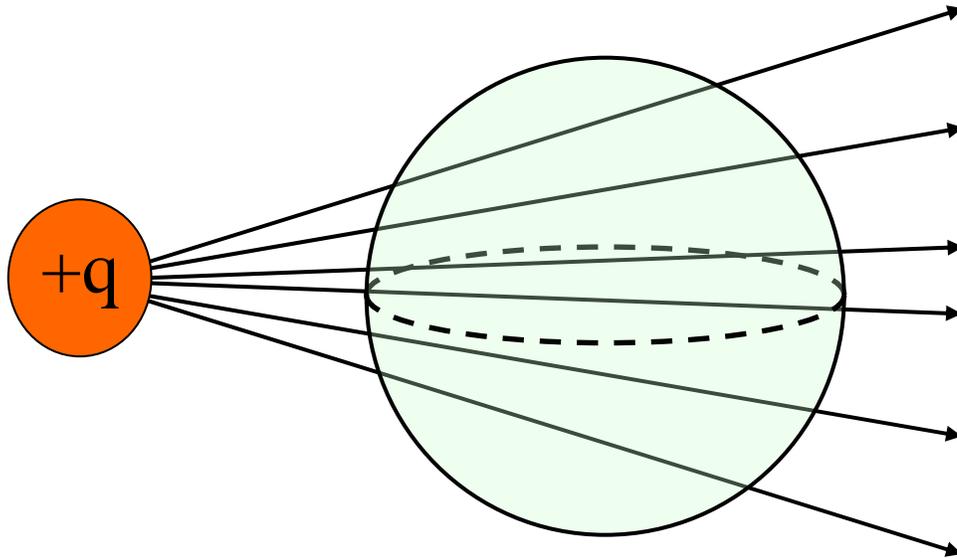
# Flux Direction

The flux through the planar surface below (positive unit normal to left)



1. is positive.
2. is negative.
3. is zero.
4. I don't know

# Flux Through Sphere



The total flux through the above spherical surface is

1. positive.
2. negative.
3. zero.
4. I don't know

# Should We Use Gauss' Law?

For which of the following uniform charge distributions can we use Gauss' Law to determine the electric field?

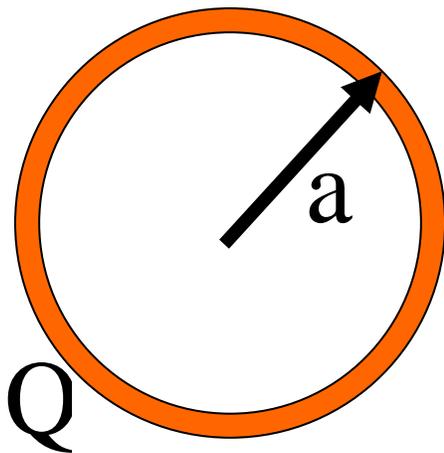
- A. Concentric nested spherical shells
- B. Non-concentric nested spherical shells
- C. Finite line of charge
- D. Infinite line of charge
- E. Thin, infinite, sheet of charge
- F. Thick, infinite, slab of charge

- |                    |                    |
|--------------------|--------------------|
| 1. None of them    | 2. All of them     |
| 3. A, B, C only    | 4. D, E, F only    |
| 5. A, D, E, F only | 6. C, D only       |
| 7. A, D, E only    | 8. C, D, E, F only |

# Spherical Shell

We just saw that in a solid sphere of charge the electric field grows

linearly with distance.



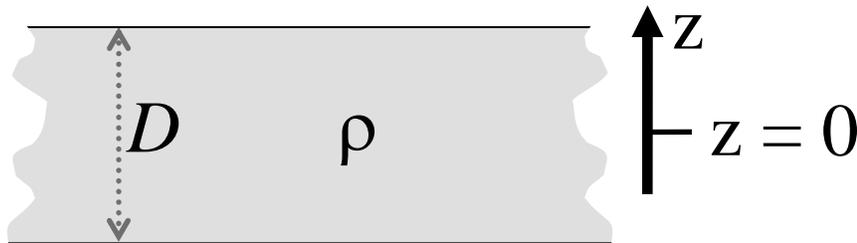
Inside the charged spherical shell at left ( $r < a$ ) what does the electric field do?

1. Constant and Zero
2. Constant but Non-Zero
3. Still grows linearly
4. Some other functional form  
(use Gauss' Law to determine)
5. Can't determine with Gauss Law

## E Field from Slab

A positively charged, semi-infinite flat slab has thickness  $D$ .

The  $z$ -axis is perpendicular to the sheet, with center at  $z = 0$ .



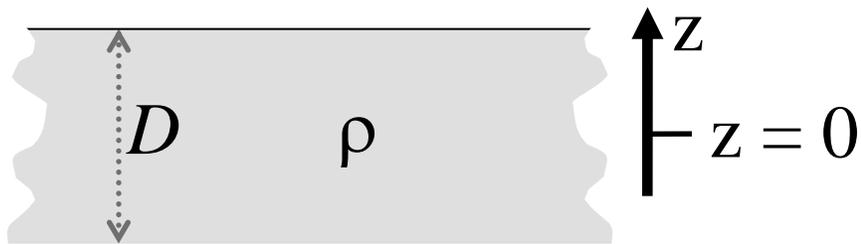
At the plane's center ( $z = 0$ ),  $\mathbf{E}$

1. points in the positive  $z$ -direction
2. points in the negative  $z$ -direction
3. is zero
4. I don't know

## E Field from Slab

A positively charged, semi-infinite flat slab has thickness  $D$ .

The  $z$ -axis is perpendicular to the sheet, with at  $z = 0$ .



A distance  $z$  from its central plane,

1.  $E$  is constant

2.  $E \propto \frac{1}{z^2}$

3.  $E \propto \frac{1}{z}$

4.  $E \propto z$

5. I don't know