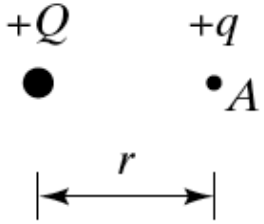
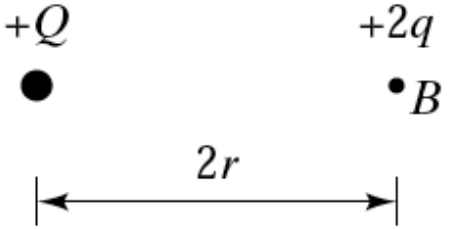
Two test charges are brought separately into the vicinity of a charge $+Q$. First, test charge $+q$ is brought to point A a distance r from $+Q$.
Next, $+q$ is removed and a test charge $+2q$ is brought to point B a distance $2r$ from $+Q$.

Compared with the <u>electrostatic potential</u> of the charge at A, that of the charge at B is

1. greater
2. smaller
3. the same
4. you can't tell from the information given





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Compared with the electrostatic potential energy of the charge at A, that of the charge at B is

1. greater
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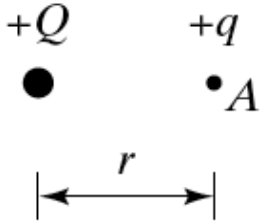
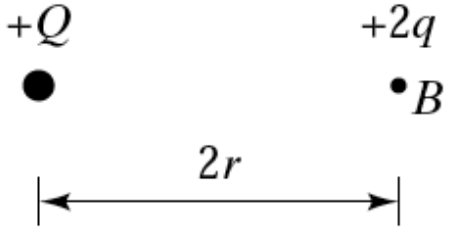
3. the same
4. you can't tell from the information given

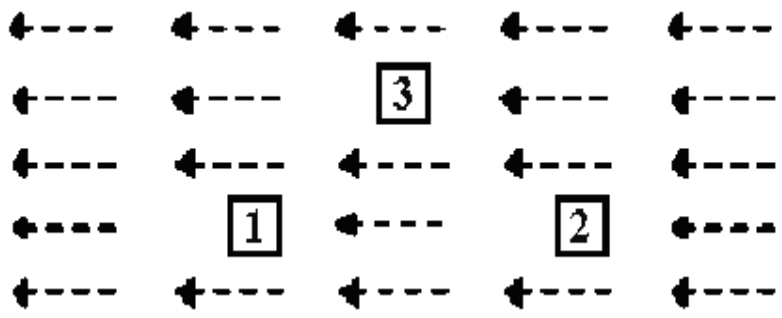




A positive charge might be placed at one of three spots in a region where there is a uniform electric field.

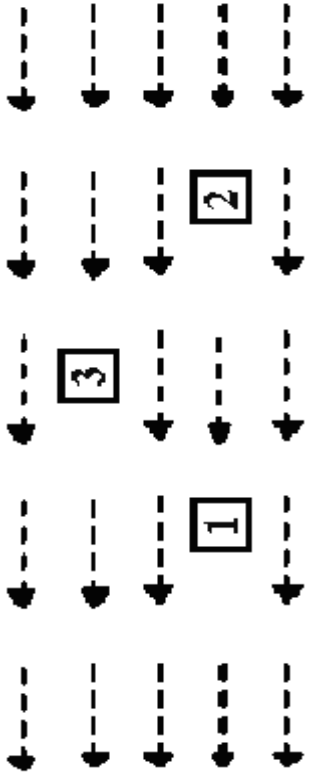
How do the electric potential, V, on acharge at positions 1, 2, or 3 compare?

1. 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.



A massive object might be placed at one of three spots in a region where there is a uniform gravitational field.
How do the gravitational potentials, $V = gh$, on a mass at positions 1, 2, or 3 compare?

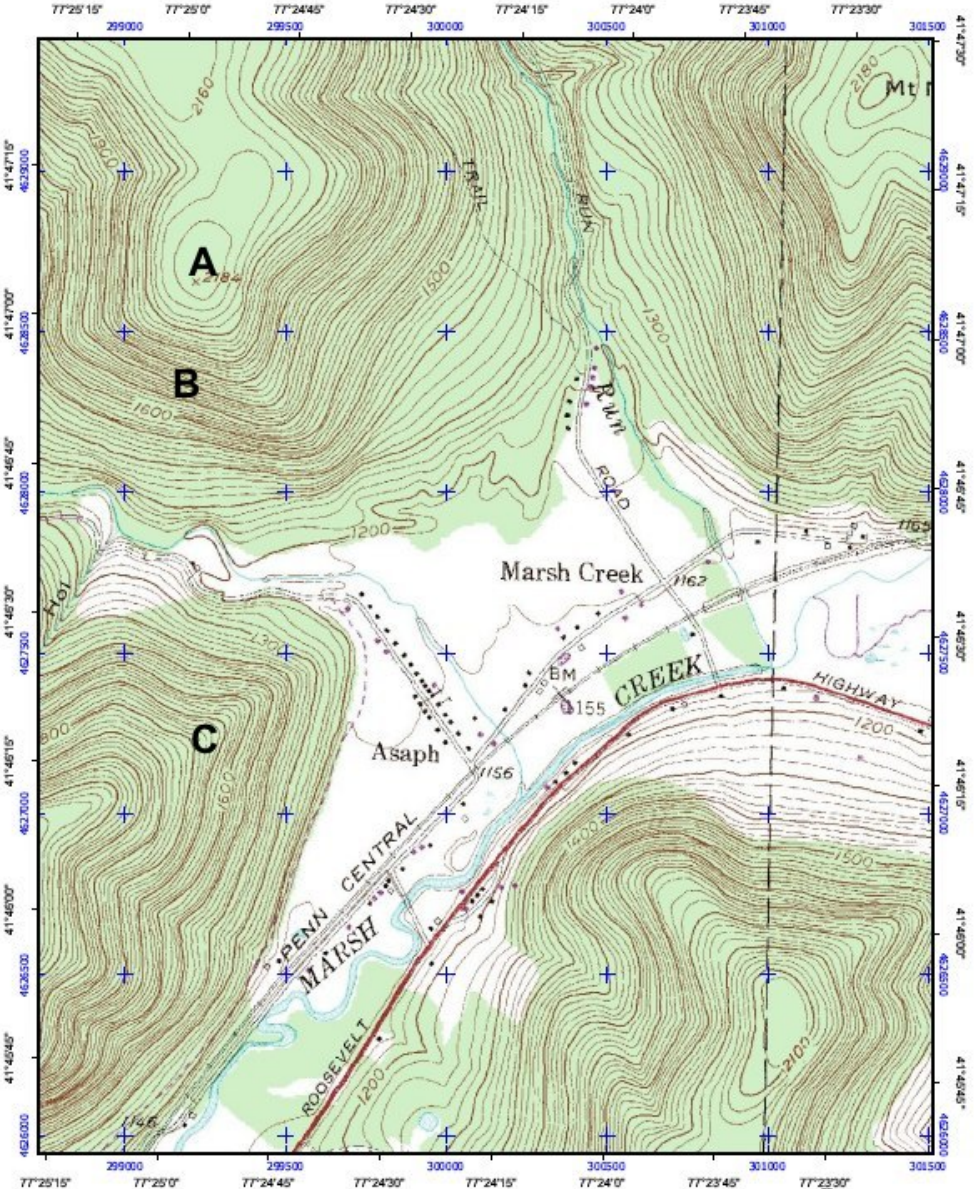
1. V is greatest at 1
2. V is greatest at 2
3. V is greatest at 3
4. V is 0 at all 3 spots
5. V is = at all 3 spots but not = 0.



Topo map = grav PE graph (2D)

At which point is the force downhill the strongest?

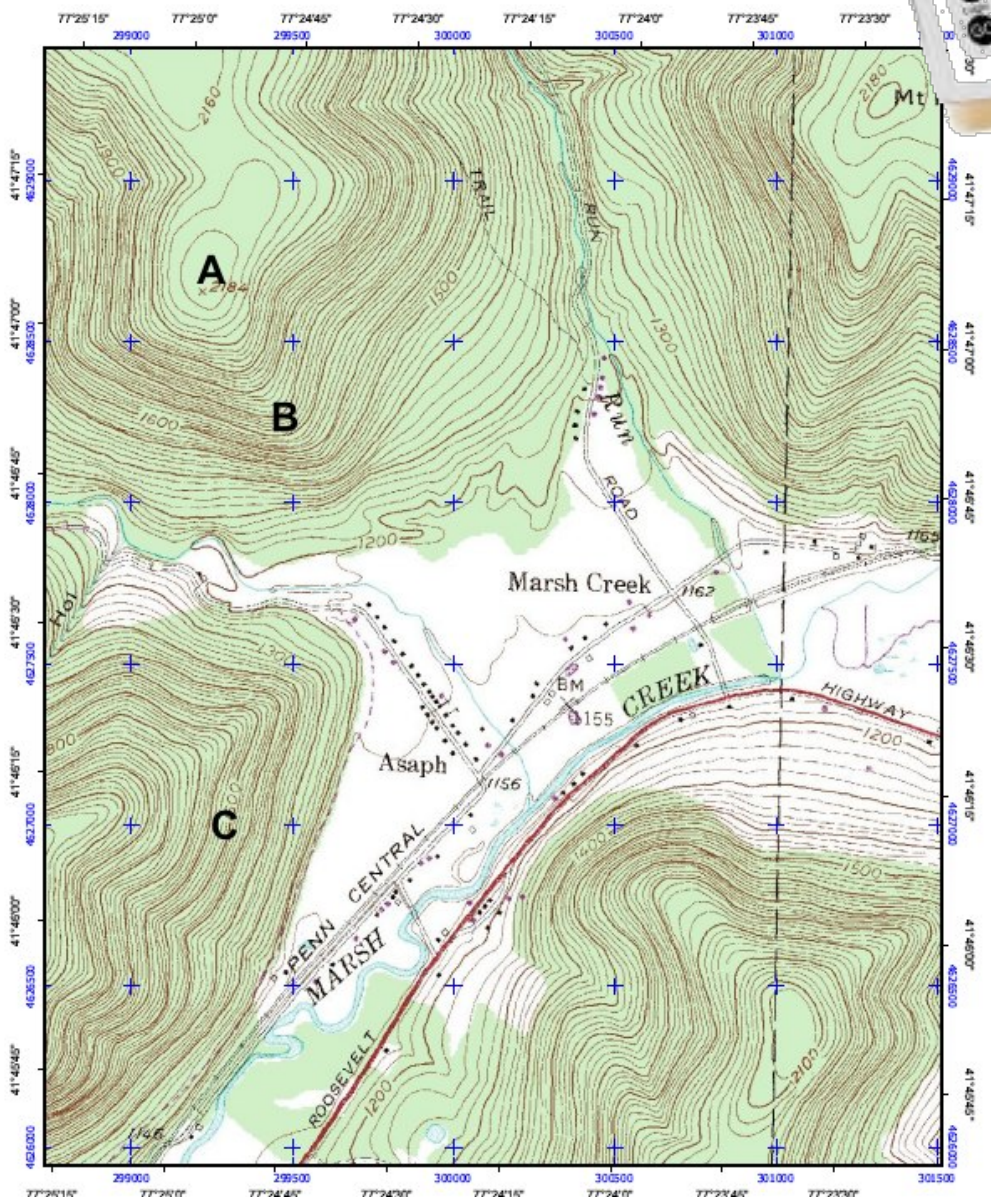
1. A
2. B
3. C



Topo map = grav PE graph
(2D)

At which point is
the force downhill
pointing to
the east?
(North is up)

1. A
2. B
3. C
4. None



Topo map = grav PE graph (2D)

At which point is the force downhill pointing to the north? (North is up)

1. A
2. B
3. C
4. None