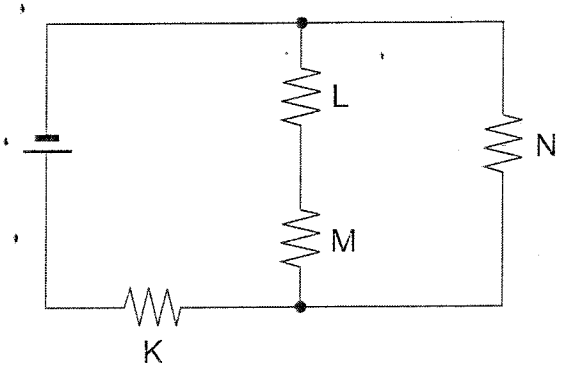
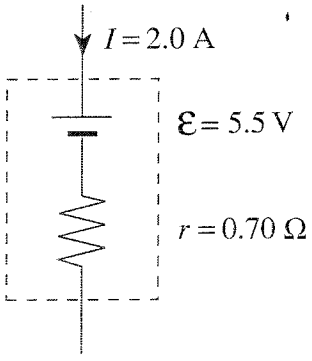
22. All the resistors shown in the circuit have the same resistance value.



Which resistor dissipates the most heat?

A. K
B. L
C. M
D. N

23. A battery is being charged by a 2.0 A current as shown in the diagram below.

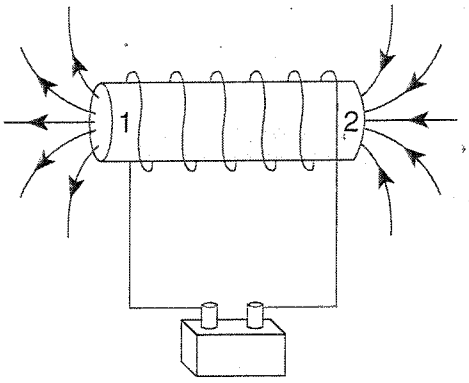


What is the terminal voltage of this battery?

A. 1.4 V
B. 4.1 V
C. 5.5 V
D. 6.9 V

OVER

24. Identify the magnetic poles 1 and 2 of the current-carrying solenoid in the diagram below.

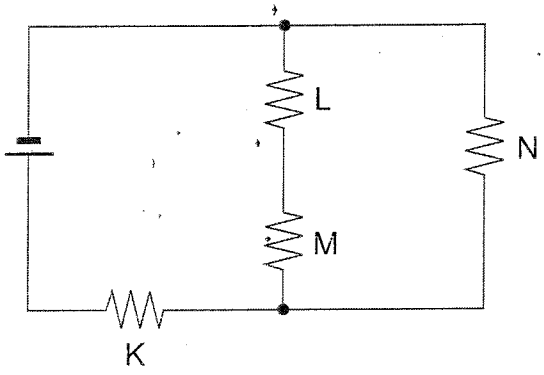


	POLE 1	POLE 2
A.	North	North
B.	North	South
C.	South	North
D.	South	South

25. Determine the direction of the magnetic force on the current-carrying conductor in the diagram below.

A. Towards the left
B. Towards the right
C. Towards the top of the page
D. Towards the bottom of the page

22. All the resistors shown in the circuit have the same resistance value.

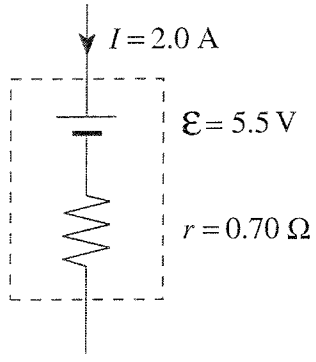


All of the current is going through K so it dissipated the most P
$P = I^2R$

Which resistor dissipates the most heat?

(A) K
B. L
C. M
D. N

23. A battery is being charged by a 2.0 A current as shown in the diagram below.



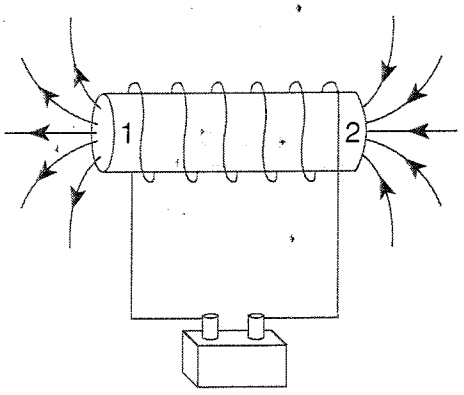
$V_t = \varepsilon + Ir$
$= 5.5 + 2 \times 0.7$
$= 6.9\ V$

What is the terminal voltage of this battery?

A. 1.4 V
B. 4.1 V
C. 5.5 V
D. 6.9 V

OVER

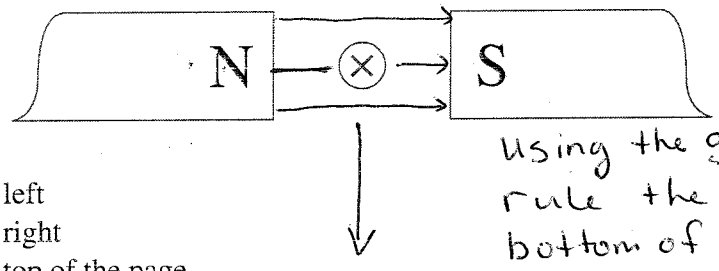
24. Identify the magnetic poles 1 and 2 of the current-carrying solenoid in the diagram below.



magnetic field lines go from North to South ∴ 1 is N & 2 is South

	POLE 1	POLE 2
A.	North	North
(B.)	North	South
C.	South	North
D.	South	South

25. Determine the direction of the magnetic force on the current-carrying conductor in the diagram below.



$\vec{B}$ field from N to S

The ⊗ tells you the conventional current is into the page.

Using the grade 12 Right hand rule the force is towards the bottom of the page.

A. Towards the left
B. Towards the right
C. Towards the top of the page
D. Towards the bottom of the page