مراجعة أسئلة وفق الهيكل الوزاري

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف الثاني عشر العام ⇦ فيزياء ⇦ الفصل الثاني ⇦ الملف

تاريخ نشر الملف على موقع المناهج: 2024-03-16 13:22:46

إعداد: عبد الرحمن عصام

التواصل الاجتماعي بحسب الصف الثاني عشر العام

روابط مواد الصف الثاني عشر العام على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الثاني عشر العام والمادة فيزياء في الفصل الثاني

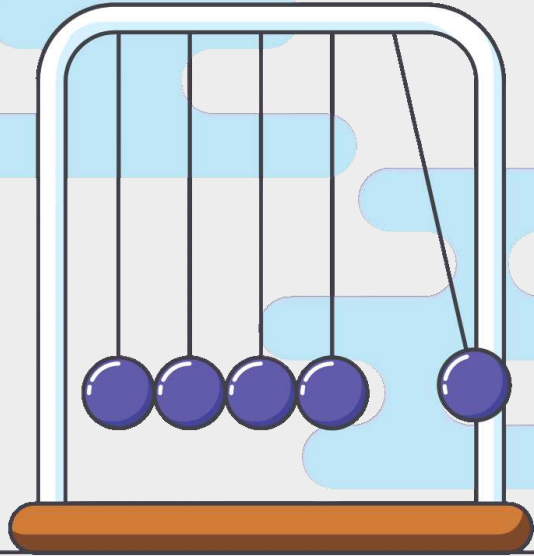| حل وشرح مراجعة وفق الهيكل الوزاري	1
أسئلة مراجعة الوحدة الخامسة Electromagnetic الكهرومغناطيسية	2
نموذج الهيكل الوزاري بريدج المسار العام	3
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12 GEN

Grade 12 GEN Physics
Questions Exam coverage

Mr Abdelrahman Esam   0509886279

Q16

Solve problems to find the current, voltages and resistances in a parallel circuit..حل مسائل لإيجاد التيار وفروق الجهد والمقاومات في دائرة توازي

TERM2
12Gen

As shown in the figure the battery develops $110\ V$.
a. Which resistor is the hottest?
b. Which resistor is the coolest?
c. What will ammeter 1 read?
d. What will ammeter 2 read?
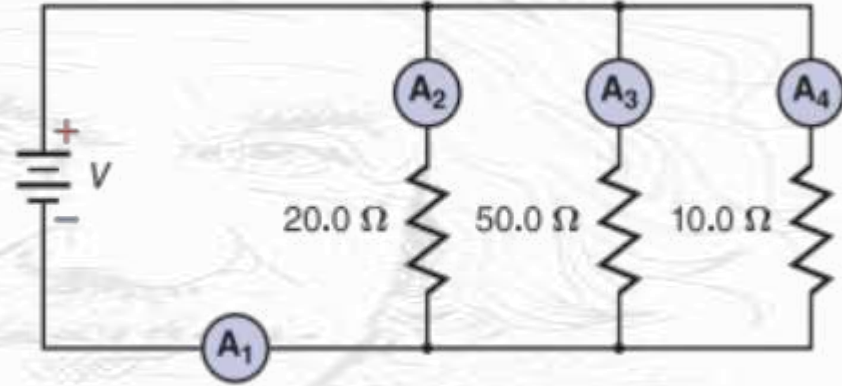e. What will ammeter 3 read?
f. What will ammeter 4 read?

Q16   Solve problems to find the current, voltages and resistances in a parallel circuit.. حل مسائل لإيجاد التيار وفروق الجهد والمقاومات في دائرة توازي

TERM2
12 Gen

the circuit shown below

a. *Find the current through each branch of the circuit.*

b. *Find the equivalent resistance of the circuit.*

c. *Find the current through the battery*

6.0 V

R_1 3.0 Ω R_2 12 Ω R_3 4.0 Ω

Q16 Solve problems to find the current, voltages and resistances in
حل مسائل لإيجاد التيار وفروق الجهد والمقاومات في دائرة توازي..a parallel circuit

TERM2
12Gen

the circuit shown below

a. Find the current through each branch of the circuit.
b. Find the equivalent resistance of the circuit.
c. Find the current through the battery

6.0 V

R_1 3.0 Ω R_2 12 Ω R_3 4.0 Ω
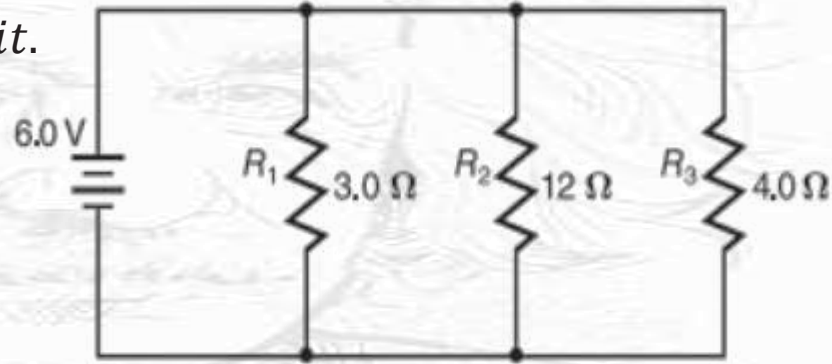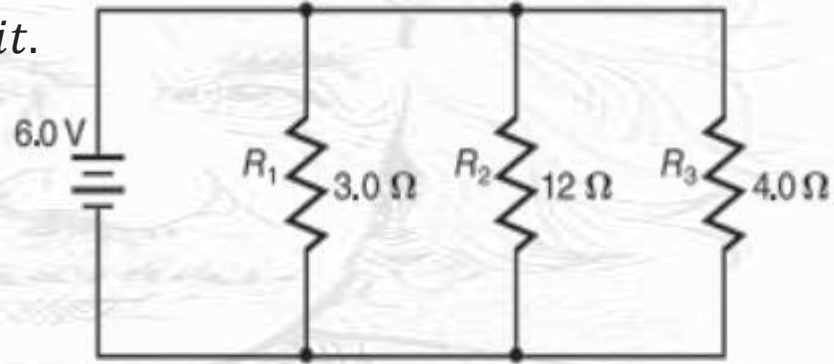
Q16
Solve problems to find the current, voltages and resistances in a parallel circuit.. حل مسائل لإيجاد التيار وفروق الجهد والمقاومات في دائرة توازي

TERM2
12Gen

the circuit shown below

a. *Find the current through each branch of the circuit.*

b. *Find the equivalent resistance of the circuit.*

c. *Find the current through the battery*

25 V

30.0 Ω   10.0 Ω

20.0 Ω   40.0 Ω

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the circuit shown below

a. *Find the current through each branch of the circuit.*

b. *Find the equivalent resistance of the circuit.*

c. *Find the current through the battery*

90.0 V

60.0 Ω   30.0 Ω   20.0 Ω

I_1 I_2 I_3

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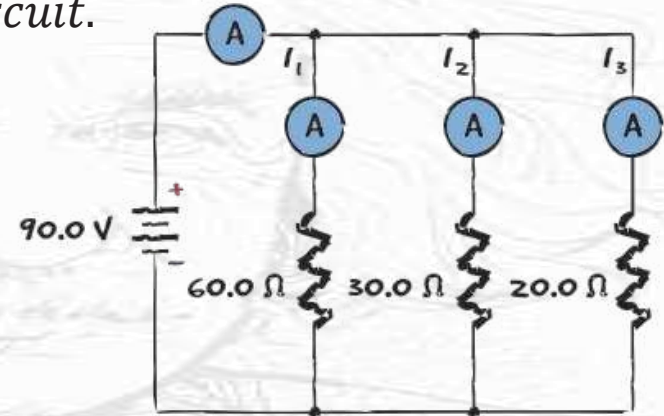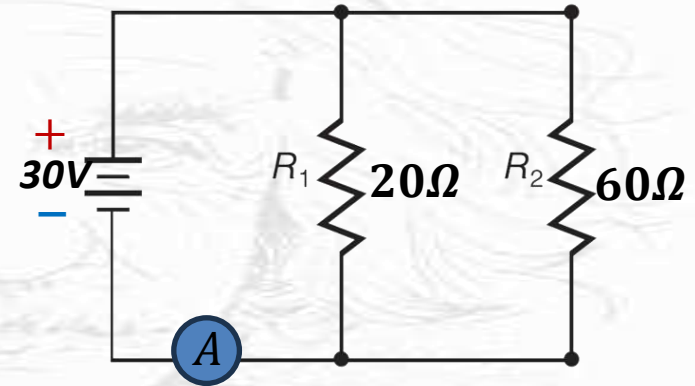
Q16 Solve problems to find the current, voltages and resistances in a parallel circuit.

حل مسائل لإيجاد التيار وفروق الجهد والمقاومات في دائرة توازي

the circuit shown below
A. Find the *equivalent resistance* of the circuit ?
B. What is the current through th*e ammeter* ?

$30V$ R_1 20Ω R_2 60Ω

A

Q17 Calculate the equivalent resistance of combined series-parallel circuits. Calculate the voltage, current, and power dissipation for any resistor in a combined series-parallel circuit.

TERM2
12 Gen

the circuit shown below

A. *Find the equivalent resistance of the circuit ?*
B. *What is the current through the battery?*

R_A

12.0 Ω

R_B

25.0 Ω

R_C

15.0 Ω

60.0 V

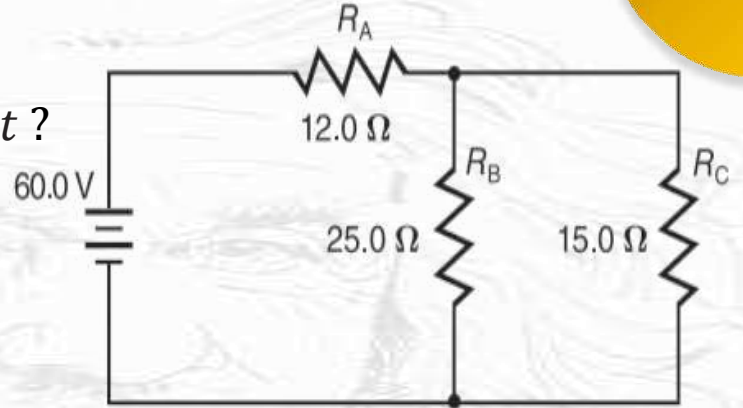**Q17** Calculate the equivalent resistance of combined series-parallel circuits. Calculate the voltage, current, and power dissipation for any resistor in a combined series-parallel circuit.

the circuit shown below
A. *Find the equivalent resistance of the circuit ?*
B. *What is the current through the battery?*

5.0 Ω
30.0 Ω   10.0 Ω
25 V
20.0 Ω   40.0 Ω

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Q18 Apply the equation $F = ILB\sin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

Determine the force on the wire
when the switch is closed and the wire has two 5.5 Ω resistors in series.

15 cm

N

S

5.5 Ω

24 V

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Q18 Apply the equation $F = ILB\sin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

The current through a wire that is 0.80 *cm long is* 5.0 *A. The wire is perpendicular to a* 0.60 *T magnetic field.*
What is the magnitude of the force on the wire?

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Q18 Apply the equation $F = ILB\sin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

A straight wire carrying a current of 7.2 A has a field of 8.9×10^{-3} T perpendicular to it. What length of wire in the field will experience a force of 2.1 N?

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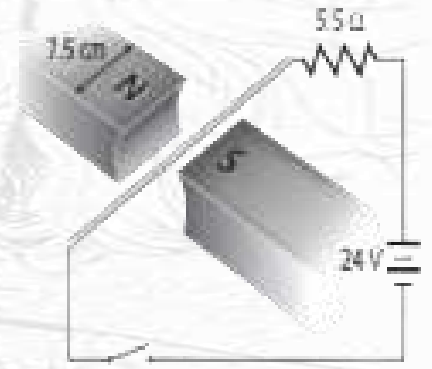
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Apply the equation $F = ILB\sin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

Assume that a 19 cm length of wire is carrying a current perpendicular to a 4.1 T magnetic field and experiences a force of 7.6 mN.
What is the current in the wire?

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Apply the equation $F = ILBsin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

What is the strength of the magnetic field (B)? wire. When 0.10 m of the wire is in the field, the force on the wire is 0.20 N. 5.0 A current is in a uniform magnetic field oriented at right angles to the

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Apply the equation $F = ILB\sin(\theta)$ to calculate the magnitude of the force on a straight segment of a current-carrying wire placed in a uniform magnetic field

A wire attached to a 5.8 V battery is in a circuit with a resistance of 18 Ω. A 14 cm length of the wire is in a magnetic field of 0.85 T, and the force on the wire is 22 mN. What is the angle of the wire in the field

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Q18 Apply the right-hand rule to find the direction of the force on a current-carrying wire placed in an external magnetic field.
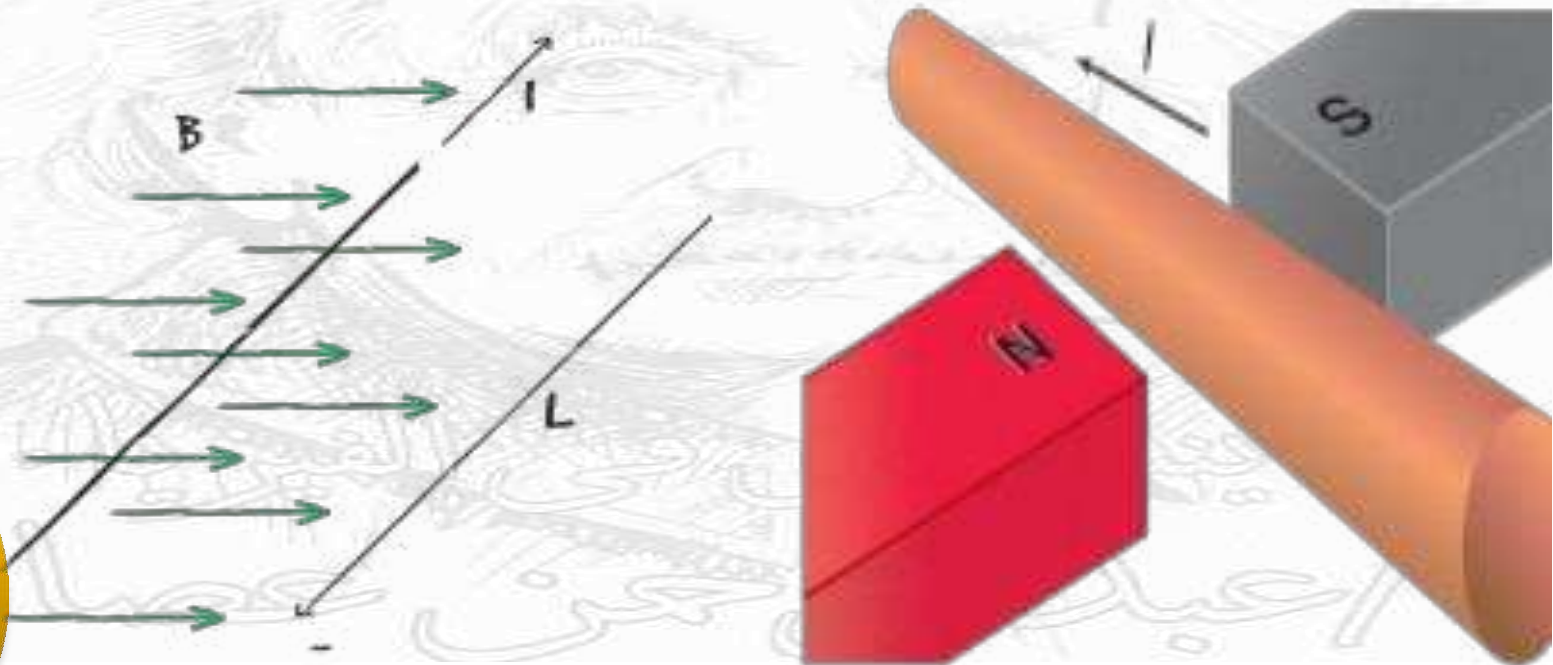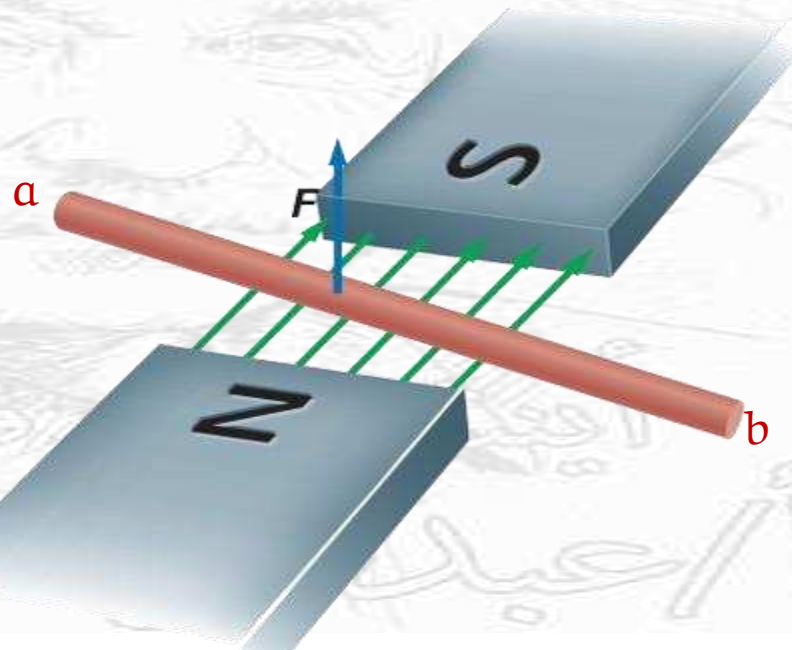
What is the direction of the force on the wire

B

I

L

S

N

Q18 Apply the right-hand rule to find the direction of the force on a current-carrying wire placed in an external magnetic field.

What is the direction of the current on the wire

Q19 Explain how fuses, circuit breakers and ground-fault interrupters protect electric circuits and make them safe to operate.
Explain the importance of a voltage-divider circuit to achieve a desired potential difference . Describe the principle and working of a simple electric motor and the energy conversions that occur.

A fuse is a short piece of metal that acts as a safety device by melting and stopping the current when too large a current passes through it.
Engineers design fuses to melt before other elements in a circuit are damaged.

A ground − fault interrupter (GFI) is a device that contains an electronic circuit that detects small current differences between the two wires in the cord connected to an appliance. An extra current path, such as one through water, could cause this difference. The GFI stops the current when it detects such differences. This often protects a person from electrocution.
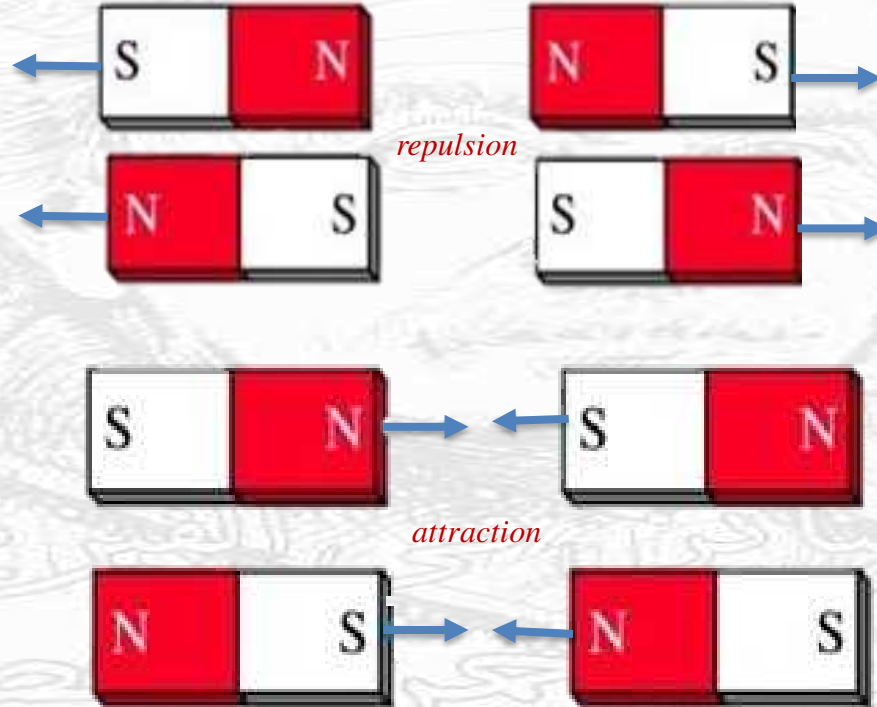
A circuit breaker, is an automatic switch that acts as a safety device by stopping the current if the current gets too large and exceeds a threshold value.

Q19 Describe the forces that occur when like or unlike poles of two permanent magnets are brought close together (in terms of the interaction between the magnetic fields and the orientation of the magnetic field lines).

repulsion

attraction

Q19

Describe the forces that occur when like or unlike poles of two permanent magnets are brought close together (in terms of the interaction between the magnetic fields and the orientation of the magnetic field lines).
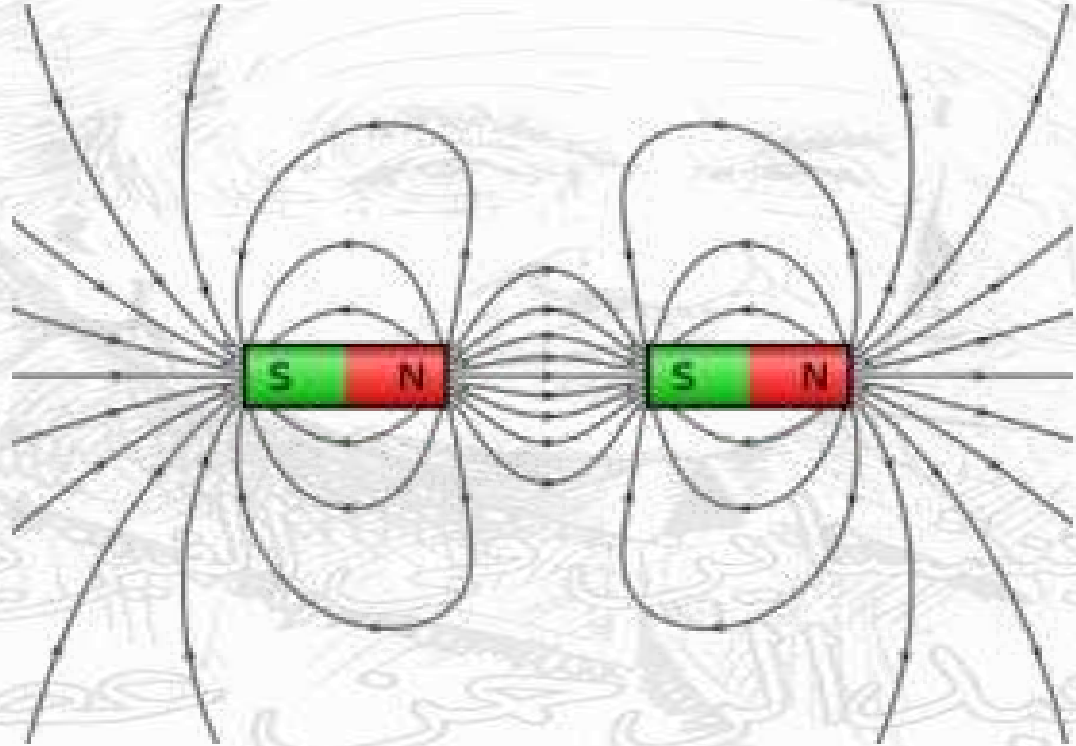
Describe the forces that occur when like or unlike poles of two permanent magnets are brought close together (in terms of the interaction between the magnetic fields and the orientation of the magnetic field lines).
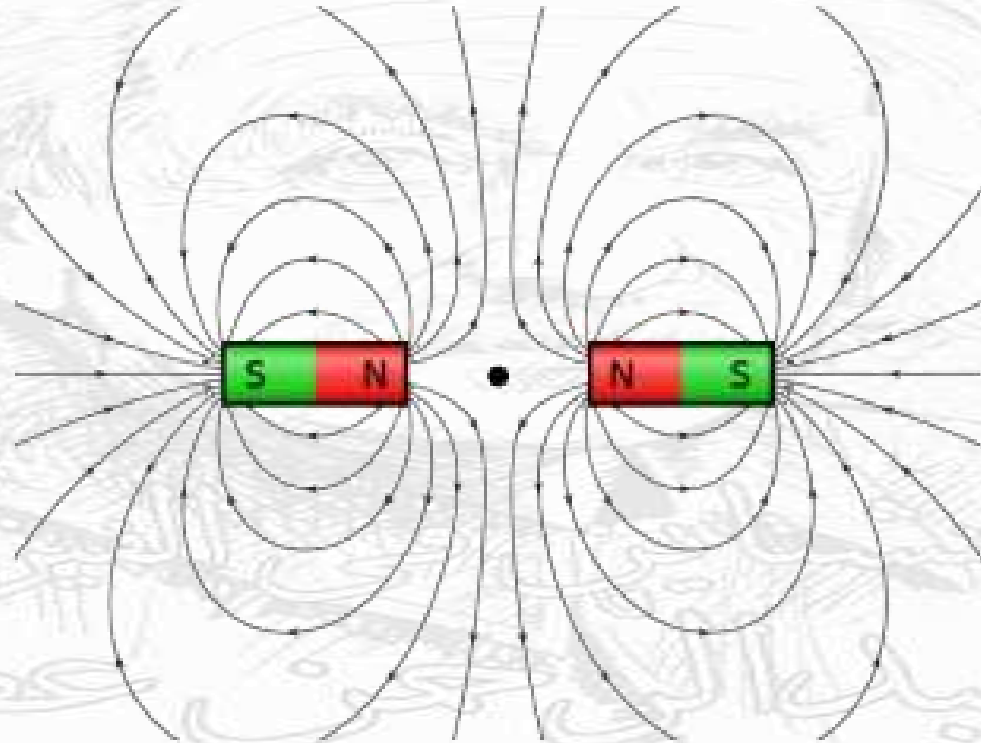
Q20 Apply the equation $F = qvBsin(\theta)$ to calculate the magnitude of the force acting on a charged particle moving in a magnetic field.

TERM2
12 Gen

A uniform magnetic field of 0.25 T points vertically.
A proton enters the field with a horizontal velocity of $4.0 \times 10^6 m/s$.
What are the magnitude force exerted on the proton ?

Apply the equation $F = qvB\sin(\theta)$ to calculate the magnitude of the force acting on a charged particle moving in a magnetic field.

A 7.12 µC charge is moving at the speed $3.0 \times 10^8 m/s$ a magnetic field of 4.02 mT. What is the force on the charge?

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Q20 Apply the equation $F = qvB\sin(\theta)$ to calculate the magnitude of the force acting on a charged particle moving in a magnetic field.

A magnetic field of $16\,T$ acts in a direction due west. An electron is traveling acting on the electron? due south at $8.1 \times 10^5\,m$ /s. What are the magnitude and direction of the force

Apply the equation $F = qvB\sin(\theta)$ to calculate the magnitude of the force acting on a charged particle moving in a magnetic field.

An electron is traveling at right angles to a magnetic field at a speed of $4.0 \times 10^4 \, m/s.$ The force on each particle is $6.4 \times 10^{-16} N.$
What is the magnetic field strength?

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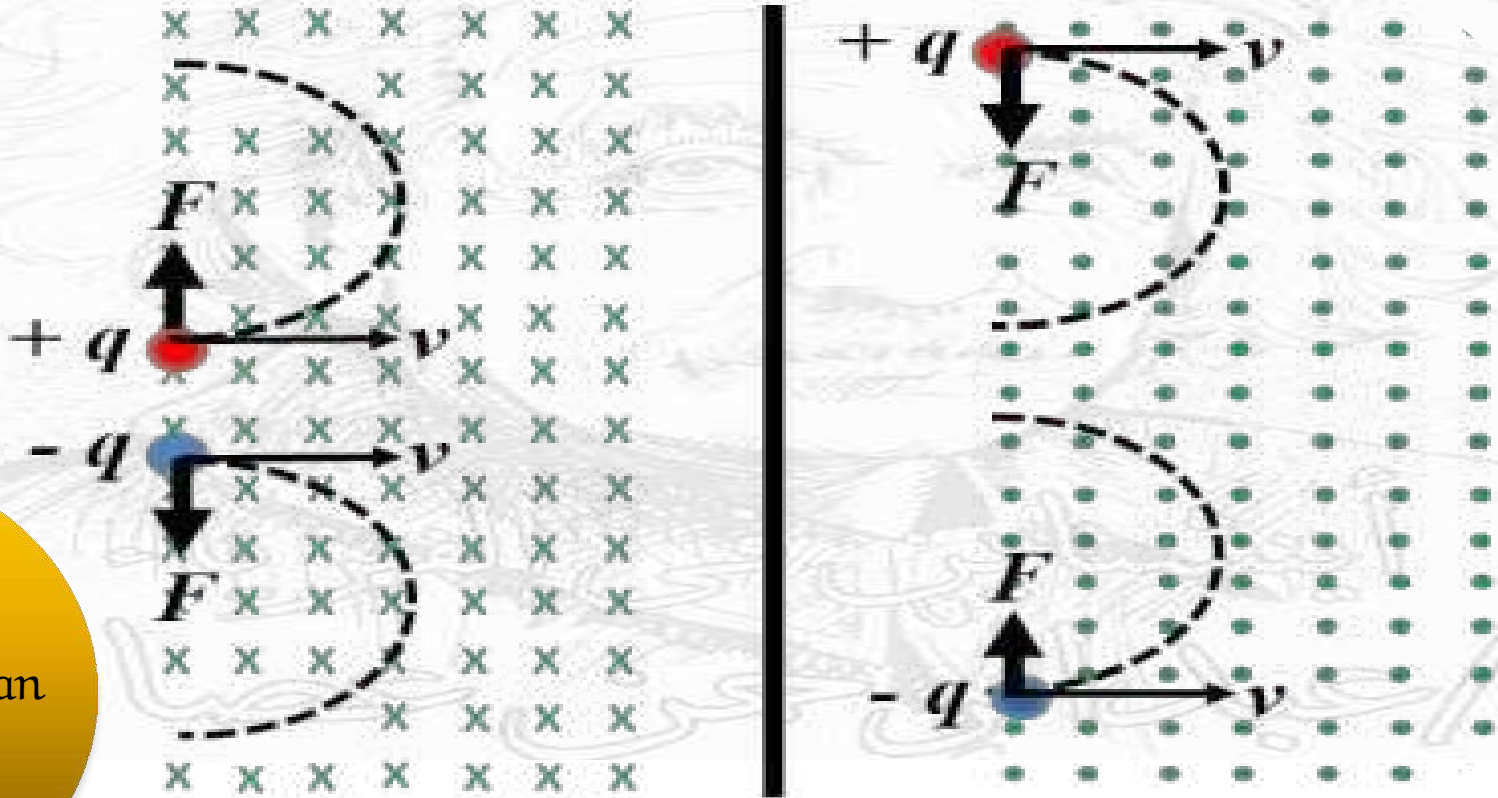
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Q20 Apply the right-hand rule to determine the direction of the force acting on a charged particle moving in a magnetic field.

Apply the equation $F = qvB\sin(\theta)$ to calculate the magnitude of the force acting on a charged particle moving in a magnetic field.

$at\ a\ right\ angle\ through\ a\ 0.61\ T\ magnetic\ field. What\ is\ the\ particle's\ velocity$

$An\ electron\ particle\ experiences\ a\ force\ of\ 4.1 \times 10^{-13} N\ when\ it\ travels$