

| The high density of lines between the charges indicates a region of strong electric field | T |
| :---: | :---: |
| This Figure shows the electric field lines for a negative charge | T |
| This Figure shows the electric field lines for a positive charge | F |
| This Figure shows the electric field lines for a negative charge | f |
| The work is done on a small car if 3000 N of force is exerted to move it 50 m to the side of the road equal to $1.5 \times 10^{5} \mathrm{~J}$ | T |
| The kinetic energy of a particle with mass $m$ and moves at a velocity $v$ can be calculated as mv | F |
| 80F corresponds $27{ }^{\circ} \mathrm{C}$ | T |
| In case of thermal linear expansion, $\Delta \mathrm{L}$ is inversely proportional to $\Delta T$ | F |
| Mass of an object depends on the value of the acceleration of gravity (g) | f |
| The acceleration of an object is directly proportional to the force acting on it | t |


| The average velocity can be positive or negative value | t |
| :--- | :--- |
| If the mass of a body is decreased under the same acting force, its acceleration will <br> decrease | f |
| A ball is thrown downward. While the ball is in free fall, its acceleration increase and <br> then decrease | f |
| Action/reaction force pairs act on the same object. | F |
| A negatively-charged object has an excess of electrons | t |
| The electric force acting on a charge q placed in an electric field E is <br> given by: F= qE | t |
| An object moves 8 m in 4 s at the constant velocity. The car's <br> velocity is 2 m/s | t |
| We can adding scalar and vector quantity | f |
| The unit of mass in S.I. is gram | f |
| A student throws a stone upward at an angle of 90 , at the highest <br> point that it reaches, the kinetic energy of the stone is at a minimum. <br> Scalar quantity has no direction <br> The maximum force of a static friction between an object and a surface depends on the <br> normal force acting on the object only <br> Body temperature is about 37 degrees on the Fahrenheit scale | f |


| The work done by the constant force F through the displacement $\Delta \mathrm{r}$ can be negative when F is antiparallel to $\Delta \mathrm{r}$ | t |
| :---: | :---: |
| The work-kinetic energy theorem relates work to a change in the volume of an object | f |
| The S.I. units used to measure power is Henry | f |
| Three displacements are $A=200 \mathrm{~m}$, due south; $\mathrm{B}=250 \mathrm{~m}$, due west; $\mathrm{C}=150 \mathrm{~m}$, $30.0^{\circ}$ east of north. The following diagram represent the adding $\mathrm{R}=\mathrm{B}+\mathrm{A}+\mathrm{C}$ | f |
| Three displacements are $\mathrm{A}=200 \mathrm{~m}$, due south; $\mathrm{B}=250 \mathrm{~m}$, due west; $\mathrm{C}=150$ $\mathrm{m}, 30.0^{\circ}$ east of north. The following diagram represent the adding $\mathrm{R}=\mathrm{A}+\mathrm{B}$ $+\mathrm{C}$ | T |
| The displacement of a particle is defined as its change in position in some time interval | t |
| An acceleration has positive, negative or zero value | t |
| If a car is speeding down, its acceleration must be negative | f |
| The volume of oil is a scalar quantity | t |
| Vector A lies in the xy plane. Both of its components will be negative if it points from the origin into the third quadrant | t |
| Two thermometers do not necessarily give the same reading at the same temperature | t |
| Electric force between two stationary charged particles is repulsive if the charges are of opposite sign | f |
| The kinetic energy of a particle with mass $m$ and moves at a velocity $v$ can be calculated as $1 / 2 \mathrm{mv}$ | F |


| The work done by a constant force $F$ through the displacement $\Delta r$ is maximum when $F$ is perpendicular to $\Delta r$ | F |
| :---: | :---: |
| The SI unit of temperature is the Kelvin (K) | T |
| If the coefficient of linear expansion of a material is ( $\alpha /{ }^{\circ} \mathrm{C}$ ), its surface coefficient of expansion equals ( $\alpha^{2} /{ }^{\circ} \mathrm{C}$ ) | F |
| A charged particle of mass $m$ and charge $q$ moving in an electric field $E$ has an acceleration $\mathrm{a}=\mathrm{E} / \mathrm{qm}^{2}$ | F |
| The magnetic force is considered as a contact force | F |
| The time interval can be positive or negative value | F |
| The weight of an object would be less on the moon than on the earth | T |
| The average velocity has always a direction but with a positive number | F |
| If a ball is thrown up while it's going up, the velocity of the ball is always in the same direction as its acceleration | F |
| The weight in Newton of a body of 100 Kg will equal to $980 \mathrm{~N} .(g=$ $9.8 \mathrm{~m} / \mathrm{s}^{2}$ | T |
| The temperature outside the university is a vector quantity | F |
| The linear coefficient of expansion is constant for all materials at $25^{\circ} \mathrm{C}$ | F |
| The unit of velocity is m/s | T |
| The temperature inside the fridge is a vector quantity | F |
| Vector A lies in the second quadrant, it has components of opposite sign | T |
| Vector A lies in the second quadrant, its components will be positive | F |
| The y component of the vector ( ${ }^{10 \hat{1}-9 \hat{k}}$ ) m is 19 m | F |
| If the vector $A$ along the direction of vector $B$ is zero, this means that they have the same magnitude and same direction | F |


| The electric force between two stationary charged particles is inversely <br> proportional to the product of the charges q1 and q2 on the two <br> particles | F |
| :--- | :--- |
| If two objects are not in thermal equilibrium with each other they must <br> have different mass | F |
| The work is vector quantity | F |
| The work-kinetic energy theorem relates work to a change in the mass of <br> an object | F |
| For a positive point charge, electric field lines are directed radially <br> inward | F |
| If charge $q$ placed in an electric field is negative, that's mean the <br> electric force and the electric field are in the same direction | F |
| The thermal linear expansion depend of the type of the material | T |
| A thermometric property is any physical property that changes measurably with <br> temperature | T |
| The magnitude of a vector have a negative value | F |
| An object moves 8 m in 4 s at the constant velocity. The car's velocity is 8 m/s energy of an object is given as $1 / 2$ mv ${ }^{2}$ | F |
| Negative acceleration means that always the object is slowing down <br> Vector A lies in the xy plane. Both of its components will be negative if it points from | F |
| If the mass of a body is decreased to the half as much under the same acting force, <br> its acceleration will increase twice | F quadrant |


| The work done by a force acting normally to the direction of the displacement of the object is maximum | F |
| :---: | :---: |
| A unit vector is dimensionless vector having a magnitude of exactly 1 | T |
| For anybody moving with constant acceleration $\sum F=0$ | F |
| For anybody moving with constant velocity $\sum F=0$ | T |
| The work done by the constant force F through the displacement $\Delta \mathrm{r}$ can be negative when $F$ is at $45^{\circ}$ from $\Delta r$ | F |
| The magnitude of vector $A$ is 8 km , and the magnitude of $B$ is 6 km . The possible values for the magnitude of $\mathrm{A}+\mathrm{B}$ is 2 | T |
| Vector A lies in the third quadrant, its components will be negative | T |
| The force is a scalar quantity | F |
| If an object falls without air resistance, its net force is always equal to its weight | T |
| The displacment between Taif and Mecca is a vector quantity | T |
| The average speed has no direction and is always expressed as a positive number | T |
| Coulomb's law indicates that unlike charges repel | F |
| If charge $q$ placed in an electric field is positive, that's mean the electric force and the electric field are in the opposite direction | F |
| The SI unit of kinetic energy is: $\mathrm{kg} . \mathrm{m} / \mathrm{s}$ | F |
| At rest the kinetic energy is zero | T |


| The velocity is the ratio of the distance of an object to a time interval | F |
| :---: | :---: |
| A ball is thrown upward. While the ball is in free fall, its acceleration is constant in all points in the motion | T |
| Three displacements are $A=30 \mathrm{~m}$, due south; $B=40 \mathrm{~m}$, due west; $\mathrm{C}=15 \mathrm{~m}, 30.0^{\circ}$ east of north. The following diagram represent the adding $R=B+C+A$ | F |
| Fahrenheit and Celsius scales don't agree at any numerical value | F |
| The average velocity of a particle is defined as the particle's displacement divided by the time interval | T |
| The force experienced by a unit test charge is a measure of the strength of an electric field | T |
| If the net force exerted on a body equal to zero, it is possible for this object to be at rest | T |
| $\mathrm{m} / \mathrm{s}$. This means that the 7 An object moves at a constant speed of second 1meter every 7object moves | T |
| If vectors A-B $=0$, this means that they have the same magnitude and same direction | F |
| The work-kinetic energy theorem relates work to a change in the volume of an object | F |
| if the acceleration is zero, this means that the velocity is not constant | F |
| If you double the net force acting on an object and double the object's mass, the object's acceleration will increase. | F |
| On the Fahrenheit scale, the boiling point of water is 212 degrees Fahrenheit ( ${ }^{\circ} \mathrm{F}$ ) | T |
| Coulomb's law indicates that like charges attract | F |


| Total charge in an isolated system is conserved | T |
| :--- | :--- |
| The initial velocity = the final velocity when the acceleration is zero | T |
| In one-dimensional motion, the acceleration equals the second <br> derivative of position with respect to time | T |
| A vector lying in the xy plane has components of opposite sign. The <br> vector must lie in the second quadrant | T |
| Mass and weight are two different quantities | T |
| The speed of any downward falling object decreases with time | F |
| Increasing the time you complete the work will increase the power. | F |
| Two people apply the same force for the same distance in different <br> amounts of time. Their work will be the same and their power will <br> be different. | T |
| The coefficient of linear expansion can be defined as the increase in length of a <br> material when heated by $1^{\circ} \mathrm{F}$ | F |
| If two objects are not in thermal equilibrium with each other they must <br> have different temperatures | T |
| In S.I. units, the kinetic energy is measured in units of Joule | T |
| In S.I. units, the kinetic energy is measured in units of Kelvin | T |
| The number of lines per unit area through a surface perpendicular to the <br> lines is proportional to the magnitude of E in that region | T |
| A negatively-charged object has an excess of electrons | F |
| The coefficient of linear expansion can be defined as the increase in length of a <br> material when heated by 1 K | F |
| If the coefficient of linear expansion of a material is (a/ $\left.{ }^{\circ} \mathrm{C}\right)$, its volume <br> coefficient of expansion equals (a ${ }^{\circ}{ }^{\circ} \mathrm{C}$ ) |  |
| The displacment between Jeddah and Mecca is a scalar quantity <br> the same signs | F |


| If the net force exerted on an object is zero, the acceleration of the <br> object is zero | T |
| :--- | :--- |
| An object moves 8 m in 4 s at the constant velocity. The car's velocity is <br> $4 \mathrm{~m} / \mathrm{s}$ | F |
| It is possible to used kinematics equations when the acceleration of <br> an object varies in time | F |
| The ratings of a TV show is a vector quantity | F |
| The kinetic friction force acting on a moving care is at the same <br> direction of the motion | F |
| Vector A lies in the xy plane. Both of its components will be negative <br> if it points from the origin into the first quadrant | F |
| The S.I. unit of displacement and distance is centimeter | F |
| in some situition the distance of an object = the displacement | T |
| If charge $q$ placed in an electric field is negative, that's mean the electric <br> force and the electric field are in the opposite direction | T |
| For a negative point charge, electric field lines are directed <br> radially outward | F |
| The work-kinetic energy theorem relates work to a change in the direction <br> of the velocity of an object | F |
| 70 N force is needed to accelerate a 10 kg object at 7 m/s |  |
| The thermal linear expansion doesn't depend of the type of the material <br> upon the sign of the charge causing the field <br> A stone is thrown straight up. When it reaches it's highest <br> point, both it's velocity and it's acceleration are zero <br> The work done by a constant force to move an object a certain displacement <br> depends the force only <br> that spring | F |
| The value of the force constant k of a spring is a measure of the diameter of | F |


| A temperature difference $\Delta \mathrm{T}=50$ on the Celsius scale corresponds 90 on the Fahrenheit scale | T |
| :---: | :---: |
| Two objects, with different sizes, masses, and temperatures, are placed in thermal contact. The direction of the energy will travel from the object at higher temperature to the object to at lower temperature | T |
| The potential energy of an object is given as m+gh | F |
| The work is scalar quantity | T |
| Vector A lies in the fourth quadrant, its components will be negative | F |
| The SI unit of acceleration m. $\mathrm{s}^{2}$ | F |
| If a ball is thrown up while it's going up, the acceleration of the ball is zero | F |
| The SI unit of an acceleration is meters per second squared (m/s ${ }^{2}$ | T |
| If the average velocity of an object is zero in some time interval; the displacement of the object for that interval must be zero | T |
| The width of classroom is vector quantity | F |
| If the mass of a body is doubled under the same acting force, its acceleration will be the half | T |
| when the weight of a moving object increases twice as much, the maximum force of the static friction increases twice as much too | T |
| The unit of force is Newton and is equivalent to $1 \mathrm{Kg} . \mathrm{m} / \mathrm{s}^{2}$ | T |
| The volume of water in a can is a vector quantity | F |
| The SI unit for electric field is (N.C | F |
| Kelvin and Fahrenheit scales agree numerically at the reading of -40 | F |
| If the displacement is in the opposite direction of the force, then the work is zero | F |
| The electric force between two stationary charged particles is proportional to the product of the charges q1 and q2 on the two particles | T |
| 273 K is the temperature of boiling of water | F |
| The age of the Universe is a scalar quantity | T |


| If $A=-B$, this means that they have the same magnitude and opposite direction | T |
| :---: | :---: |
| The potential energy of an object is given as m/g | F |
| In S.I. units, the work is measured in units of Joule | T |
| A stone is thrown straight up. When it reaches it's highest point, it's velocity is zero and it's acceleration is not zero | T |
| The ratings of a TV show is a scalar quantity | T |
| The mass of a person on the earth will be the same at the moon | T |
| The acceleration of a 10 kg body exerted by 100 N force is $10 \mathrm{~m} / \mathrm{s}^{2}$ | T |
| hree displacements are $\mathrm{A}=20 \mathrm{~m}$, due south; $\mathrm{B}=25 \mathrm{~m}$, due west; $\mathrm{C}=$ $15 \mathrm{~m}, 30.0^{\circ}$ east of north. The following diagram represent the adding $\mathrm{R}=\mathrm{A}+\mathrm{C}+\mathrm{B}$ | F |
| The weight of anybody on the earth and moon are the same | F |
| Decreasing the time you complete the work will decrease the power | F |
| Temperature in ${ }^{\circ} \mathrm{Celsius}=($ Temperature in Kelvin) - 373.15 | F |
| The work-kinetic energy theorem relates work to a change in the density of an object | F |
| Increasing the time you complete the work will decrease the power | T |
| The force between charged objects increases when their separation increases | F |
| The maximum force of static friction between an object and a surface is directly proportional to the normal force acting on the object | T |
| It is possible for the velocity and the acceleration of an object to have opposite signs | T |


| The work-kinetic energy theorem indicates that the speed of a system <br> increases if the net work done on it is positive | T |
| :--- | :--- |
| The work-kinetic energy theorem relates work to a change in the momentum <br> of an object | F |
| The velocity is the ratio of the displacement of an object to a time <br> interval | T |
| The wieght of physics book is a vector quantity | T |
| If you double the net force acting on an object and double the <br> object's mass, the object's acceleration will remain unchanged | T |
| When the object's velocity and acceleration are in the same <br> direction , the object is slowing down | F |
| Action/reaction force pairs act on different objects | T |
| Electric force between two stationary charged particles is a conservative <br> force | T |
| Electric force between two stationary charged particles is attractive if <br> the charges have the same sign | F |
| The magnitude of vector A is 8 km, and the magnitude of B is 6 km. <br> The possible values for the magnitude of A + B is 8 | T |
| On the Fahrenheit scale, the freezing point of water is 32 <br> degrees Fahrenheit ('F) | T |
| An object moves at a constant speed of 6 m/s. This means that the object moves <br> 1 meter every 6 seconds | F |
| A vector lying in the xy plane has components of opposite sign. The <br> vector must lie in the third quadrant | F |
| If the vector A along the direction of vector B is zero, this means that <br> they have the same magnitude and opposite direction | T |
| The potential energy of an object is given as mgh |  |


| If two objects have the same internal heat, it means that they are in thermal <br> equilibrium with each other | F |
| :--- | :--- |
| Electric field lines cannot cross | T |
| Conductors are materials in which electrons do not move freely | F |
| The weight of anybody depends on the gravity | T |
| The gravitational force acting on a body is the weight of the body | T |
| The amount of energy represented by kilowatt-hour (1 kWh) is 3.6 MJ | F |
| If the displacement is in the direction of the force, then the work is negative | F |
| As a falling apple approaches the ground, its potential energy <br> increases | F |
| Pyrex glass has a higher coefficient of linear expansion than normal glass | T |
| The instantaneous velocity is a scalar quantity | T |
| The distance between Taif and Riyadh is a scalar quantity |  |
| A train accelerates from rest with an acceleration of 4 m/s ${ }^{2}$ for a time <br> of 20 s. The train's speed at the end of 20 is 40 m/s. <br> Teparation between the atoms in an object | F |
| The age of the Universe is a vector quantity | F |


| A vector lying in the xy plane has components of opposite sign. The vector must lie in the second and fourth quadrant | T |
| :---: | :---: |
| Energy is measured in the same units as work. | T |
| The potential energy of an object depends on its mass only | F |
| Vector A lies in the first quadrant, its components will be negative | F |
| The speed of any upward throwing object decreases with time | T |
| If the vectors $A=B$, this means that they have the same magnitude | T |
| The magnitudes of two vectors $A$ and $B$ are $A=5$ units and $B=2$ units. The largest value possible for the resultant vector $R=A+B$ is 7 | T |
| At any point $P$, the total electric field due to a group of source charges equals the vector sum of the electric fields of all the charges | T |
| Two objects, with different sizes, masses, and temperatures, are placed in thermal contact. The direction of the energy will travel from object with more mass to the object with less mass | F |
| The number of electric field lines drawn approaching a negative charge is proportional to the magnitude of the charge | T |
| The absolute zero temperature corresponds to $-459^{\circ} \mathrm{F}$ | T |
| Vector quantity has no direction | F |
| If the acceleration of an object is zero, this means that the net force exerted on the object is not zero | F |
| Electric force between two stationary charged particles is attractive if the charges are of opposite sign | T |
| The mass of a body having weight 980 N is $980 \mathrm{Kg} .\left(g=9.8 \mathrm{~m} / \mathrm{s}^{2}\right.$ | F |
| Vector A lies in the xy plane. Both of its components will be negative if it points from the origin into the second quadrant | F |
| The coefficient of linear expansion is defined as the increase in length of a material when heated by $1^{\circ} \mathrm{C}$ | T |
| A charged particle of mass $m$ and charge $q$ moving in an electric field $E$ has an acceleration $\mathrm{a}=\mathrm{qE} / \mathrm{m}$ | T |
| The thermometers are based on the zeroth law of thermodynamics | T |
| Thermal equilibrium is a situation in which there is no energy exchange between two object if they were placed in thermal contact | T |


| Objects thrown upward or downward and those released from rest <br> are all falling freely | T |
| :--- | :--- |
| It is possible for an object to have motion in the absence of forces on <br> the object | T |
| Two people apply the same force for the same distance in different amounts <br> of time. Their power will be the same and their work will be <br> different | F |
| If the displacement is in the direction of the force, then the work is Zero | F |
| Fahrenheit and Kelvin scales can agree at many numerical values | F |
| The force between charged objects decreases when their <br> separation increases | T |
| The instantaneous acceleration is a vector quantity | T |
| The gravitational force is considered as a contact force | T |
| 40K corresponds -233.15 oC | T |
| Insulators are materials in which electrons do not move freely |  |
| Mass and weight are same quantities | T |
| The length of bedroom is a scalar quantity | T |
| The gravity on the earth and moon are not the same |  |
| The equations of kinematic can used only when the acceleration is zero | F |
| The coefficient of static friction and the coefficient of kinetic friction <br> between any two surfaces have the same values |  |
| If the displacement is in the direction of the force, then the work is positive <br> of a solid because the liquid expands too much when heated |  |
| In case of a baseball of mass m is thrown upward with some initial <br> speed, the gravitational force is exerted on the ball at all points in its <br> motion except at the highest point | F |
| The velocity of a sports car is a scalar quantity |  |


| The force between two point charges is described by Coulomb's law | T |
| :---: | :---: |
| Insulators are materials in which electrons move freely | F |
| The electric field is a scalar quantity | F |
| The work-kinetic energy theorem indicates that the speed of a system increases if the net work done on it is negative | F |
| The unit of linear, surface and volume coefficients of expansion is $1 /{ }^{\circ} \mathrm{C}$ | T |
| If an object falls without air resistance, its net force is always equal to its mass | F |
| Distance could be either positive or negative value | F |
| The free fall is the motion under the influence of gravity only | T |
| The work done by a force acting normally (perpendicular) to the direction of the displacement of the object is zero | T |
| The mass of a body having weight 980 N is $100 \mathrm{Kg} .\left(g=9.8 \mathrm{~m} / \mathrm{s}^{2}\right.$ | T |
| Coulomb's law indicates that unlike charges attract | T |
| inertia is the tendency of an object to resist a change in motion | T |
| If the velocity of the particle is a constant, the acceleration of a particle will be zero | T |
| The electrical force is considered as a contact force | F |
| At any point $P$, the total electric field due to a group of source charges equals the algebraic sum of the electric fields of all the charges | F |
| A common thermometer in everyday use consists of a mass of liquid | T |
| The kinetic energy of a particle with mass $m$ and moves at a velocity $v$ can be calculated as $\frac{1}{2} m v^{2}$ | T |
| In S.I. units, the kinetic energy is measured in units of Calorie | F |
| The height of a building is a vector quantity | F |

بالتوفيق + لاتتسون تدعولي

