

## Math

### 代数部分

#### 1. 基础

add, plus 加	subtract 减	difference 差	multiply times 乘
product 积	divide 除	divisible 可被整除的	
divided evenly 被整除		dividend 被除数	divisor 因子, 除数
quotient 商	remainder 余数	factorial 阶乘	power 乘方
radical sign, root sign 根号		round to 四舍五入	
to the nearest 四舍五入			

#### 2. 有关集合

union 并集      proper subset 真子集      solution set 解集

#### 3. 有关代数式、方程和不等式

algebraic term 代数项	like terms, similar terms 同类项
numerical coefficient 数字系数	literal coefficient 字母系数
Inequality 不等式	triangle inequality 三角不等式
range 值域	original equation 原方程
equivalent equation 同解方程 等价方程	linear equation 线性方程

#### 4. 有关分数和小数

Proper fraction 真分数	improper fraction 假分数	mixed number 带分数
vulgar fraction, common fraction 通分数		simple fraction 简分数
complex fraction 繁分数	numerator 分子	denominator 分母
(least) common denominator 最小公分母	quarter 四分之一	
decimal fraction 纯小数	infinite decimal 无穷小数	
recurring decimal 循环小数	tenths unit 十分位	

#### 5. 基本数学概念

arithmetic mean 算术平均值	weighted average 加权平均值
geometric mean 几何平均数	exponent 指数, 幂
base 乘幂的底数, 底边	cube 立方数, 立方体
square root 平方根	cube root 立方根
common logarithm 常用对数	digit 数字
variable 变量	constant 常数
complementary function 余函数	inverse function 反函数
factorization 因式分解	linear 一次的, 线性的
	absolute value 绝对值

## 美国新 10 年级暑期作业

round off 四舍五入

### 6. 杆有关数论

natural number 自然数      positive number 正数      negative number 负数  
odd integer 奇正数, odd number 奇数      even integer , even number 偶数  
integer , whole number 正数      negative whole number 负整数  
positive whole number 正整数      consecutive number 连续整数  
real number , rational number 实数, 有理数      irrational (number) 无理数  
inverse 倒数      composite number 合数      reciprocal 倒数  
common divisor 公约数      prime number 质数 e.g 2, 3, 5, 7, 11, 13....  
(least) common multiple (最小) 公倍数      multiple 倍数  
(prime) factor (质) 因子      common factor 公因子  
ordinary scale , decimal scale 十进制      nonnegative 非负的  
tens 十位      mode 众数  
median 中数      common ratio 公比

### 7. 数列

arithmetic progression (sequence) 等差数列  
geometric progression (sequence) 等比数列

### 8. 其它

approximate 近似      (anti) clockwise (逆) 顺时针方向  
cardinal 基数      ordinal 序数      direct proportion 正比  
distinct 不同的      estimation 估计, 近似      parentheses 括号  
proportion 比例      permutation 排列      combination 组合  
table 表格      trigonometric function 三角函      unit 单位, 位

**几何部分** (此部分知识高中阶段才学, 词汇部分 SAT 会涉及, 单词记住看懂即可)

### 1. 所有的角

alternate angle 内错角      corresponding angle 同位角  
vertical angle 对顶角      central angle 圆心角  
interior angle 内角      exterior angle 外角  
supplementary angles 补角      acute angle 锐角  
complementary angle 余角      adjacent angle 邻角  
obtuse angle 钝角      right angle 直角      round angle 周角  
straight angle 平角      included angle 夹角

### 2. 所有的三角形

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equilateral triangle 等边三角形  
 isosceles triangle 等腰三角形  
 oblique 斜三角形

scalene triangle 不等边三角形  
 right triangle 直角三角形  
 inscribed triangle 内接三角形

### 3. 有关收敛的平面图形，除三角形外

semicircle 半圆  
 pentagon 五边形  
 octagon 八边形  
 parallelogram 平行四边形  
 square 正方形  
 rhombus 菱形

concentric circles 同心圆  
 hexagon 六边形  
 nonagon 九边形  
 equilateral 等变形  
 rectangle 长方形  
 trapezoid 梯形

quadrilateral 四边形  
 heptagon 七边形  
 decagon 十边形  
 plane 平面  
 regular polygon 正多边形

### 4. 其他平面图形

arc 弧  
 parallel lines 平行线

line, straight line 直线

line segment 线段  
 segment of a circle 弧长

### 5. 有关立体图形

cube 立方体，立方数  
 regular solid/regular polyhedron 正多面体  
 cone 圆锥

rectangular solid 长方体

sphere 球体  
 circular cylinder 圆柱体  
 solid 立体的

### 6. 有关图形上的附属物

altitude 高  
 radian 弧度  
 arm 直角三角形的股  
 center of a circle 圆心  
 angle bisector 角平分线  
 edge 棱  
 face of a solid 立体的面  
 median of a triangle 三角形的中线  
 base 底边，底数 (e.g. 2 的 5 次方，2 就是底数)  
 opposite 直角三角形中的对边  
 vertex (复数形式 vertices) 顶点

depth 深度

surface area 表面积

side 边

chord 弦

diagonal 对角线

included side 夹边

leg 三角形的直角边

circumference, perimeter 周长

volume 体积

cross section 横截面

radius 半径

diameter 直径

hypotenuse 斜边

midpoint 中点

endpoint 端点

tangent 切线的

transversal 截线

intercept 截距

### 7. 有关坐标

coordinate system 坐标系  
 origin 原点  
 abscissa 横坐标  
 slope 斜率

rectangular coordinate 直角坐标系  
 ordinate 纵坐标  
 number line 数轴  
 complex plane 复平面  
 quadrant 象限

8.其它

plane geometry 平面几何  
circumscribe 外切  
perpendicular 垂直  
congruent 全等的

trigonometry 三角学  
inscribe 内切  
Pythagorean theorem 勾股定理  
multilateral 多边的

bisect 平分  
intersect 相交

9.其它相关词汇

cent 美分

dime 1 角硬币

centigrade 摄氏

gallon 加仑 (1 gallon = 4 quart)

micron 微米

minute 分 (角度的度量单位, 60 分 = 1 度)

square measure 平方单位制

penny 1 美分硬币

dozen 打 (12 个)

Fahrenheit 华氏

yard 码

inch 英寸

minute 分 (角度的度量单位, 60 分 = 1 度)

pint 品脱 (干量或液量的单位)

nickel 5 美分硬币

score 廿 (20 个)

quart 夸脱

meter 米

foot 英尺

cubic meter 立方米

pint 品脱 (干量或液量的单位)



## Physics

### Glossary--General physics 1

Measurement n.测量	SI unit 国际单位	prefix n.前缀
parallax error 视差	avoid v.避免	significant number 有效数字
vernier calliper 游标卡尺	main scale 主尺	vernier scale 游标尺
division n.分度	mark n.刻度	length n.长度
micrometer screw gauge 螺旋测微计/千分尺	wind v.绕(线)	width n.宽度
height n.高度 volume n.体积	turn n.圈	time n.时间
spin v.绕(线)	sphere n.球体	regular shape 规则形状
irregular adj.不规则的	density n.密度	cylinder n.圆柱体
graduating cylinder n.量筒	stop watch n.手表	measuring cylinder n.量筒
meniscus n.弯月面	simple pendulum n.单摆	balance n.称
mass n.质量	length of pendulum 摆长	digital adj.数字的
analogue adj.模拟的	retort stand 铁架台	period n.周期
equilibrium position 平衡位置	clamp n.夹子	swing v.摆动 n.摆动
oscillation n.振动		string n.线
amplitude n.振幅		bob n.摆锤, 摆球
boss n.夹子		

### Glossary--General physics 2

average speed 平均速率	direction n.方向	speed n.速率
instantaneous speed 瞬时速率	acceleration n.加速度	velocity n.速度
initial position 初始位置	distance n.距离	vector n.矢量
displacement n.位移	scale n.标量	magnitude n.大小
final position 末位置	graph n.图像	radius n.半径
motion n.运动	at rest adj.静止	stationary adj.静止
stop v.静止	increase v.增加	go down 减小
stay the same 不变	steady adj.恒定的	constant n.常数
uniform adj.恒定的	curve n.曲线	gradient n.斜率
accelerate v.加速	decelerate v.减速	steep adj.陡的
slope n.斜率/斜面		

### Glossary--General physics 3

acceleration of free fall 自由落体加速度	free fall 自由落体	weight n.重力
gravitational field strength 重力场强度	friction n.摩擦力	object n.物体
terminal velocity 自由沉降速度	gravity n.地心引力	body n.物体
uniform circular motion 匀速圆周运动	property n.性质	pivot n.支点
centripetal acceleration 向心加速度	inertia n.惯性	resist v.阻碍
equivalent adj.等价的, 等同于	component n.分力	whirl v.旋转
trigonometry n.三角形法	right angle 直角	tangent 切线
parallelogram n.平行四边形	diagonal n.对角线	component n.分力

built-in adj.固有的  
air resistance 空气阻力  
centripetal force 向心力  
maximum adj.最小的  
resultant force 合力  
protractor n.量角器  
project v.抛出, 射出

gravitational field 重力场  
force n.力  
be tangential to adj.相切的  
minimum adj.最大的  
be perpendicular to 垂直于  
vector diagram 矢量图

## Glossary--General physics 4

Newton's first law 牛顿第一定律  
Newton's second law 牛顿第二定律  
Newton's third law 牛顿第三定律  
be inversely proportional to 反比于  
reaction n.反作用力  
extension n.伸长量  
stretch v.拉伸  
spring constant 弹性系数  
force constant 弹力常数  
elastic limit 弹性限度  
stretching force 拉力  
elastic adj.弹性的  
permanently deformed 永久性变形的

external force 外力  
result in 导致, 产生  
be proportional to 正比于  
action n.作用力  
spring n.弹簧  
original length 初始长度  
stretched length 拉伸长度  
stiffness constant 刚度系数  
limit of proportionality 比例极限  
Hooke's law 胡克定律  
load n.载荷  
plastic adj.塑性的  
plasticine n.橡皮泥

## Glossary--General physics 5

moment of a force n.力矩  
perpendicular distance 垂直距离  
clockwise direction 顺时针方向  
anticlockwise direction 逆时针方向  
The principle of moment 力矩原理  
unstable equilibrium 不稳定平衡  
stable equilibrium 稳定平衡  
neutral equilibrium 中性平衡  
stability n.稳定性

torque n.力矩  
pivot n.支点  
lever n.杠杆  
sum n.之和  
lamina 薄片  
topple v.倾倒  
tip v.倾斜  
tilt n./v.倾斜

turning effect 转动效果  
fulcrum n.支点  
a couple 力偶  
condition n.条件  
center of mass 质心  
plumb line 铅垂线  
intersection 交点  
cardboard 纸板

## Glossary--General physics 6

gravitational potential energy 重力势能  
elastic potential energy 弹性势能  
Law of conservation of energy 能量守恒定律  
standard atmospheric pressure/atm 标准大气压  
mechanical energy 机械能  
kinetic energy 动能  
efficiency n.效率

work n.功  
gain v.得到  
potential energy 势能  
deformation n.形变

energy n.能  
loss v.损失  
negative adj.负的  
nuclear energy 原子能  
geothermal energy 地热能  
power n.功率  
destroy v.消失



strain n. 应变	positive adj. 正的	capacity n. 能力
conversion n. 转化	conservation n. 守恒	create v. 创造
transform v. 转化	store v. 储存	transfer v. 转化
form n. 形式	pressure n. 压强	depth n. 深度
mercury barometer 水银气压计		fusion n. 聚变
manometer n. 气压计		

## Glossary--Thermal physics 1

kinetic molecular model 分子动力模型		molecular model 分子模型
solid n. 固体	liquid n. 液体	gas n. 气体
vibrate v. 振动	attraction n. 吸引	molecule n. 分子
atom n. 原子	individual adj. 单个	effect n. 效应
thermal expansion 热膨胀		Brownian motion 布朗运动
evidence n. 证据	zigzag n. 之字型	evaporation n. 蒸发
phenomenon n. 现象	surface n. 表面	draught n. 气流
bubble n. 气泡	molecular theory 分子理论	melting n. 融化
cooling effect 冷却效应	boiling n. 沸腾	boiling point 沸点
melting point 熔点	condensation n. 液化	solidification n. 凝固

## Glossary--Thermal physics 2

heat capacity 热容	specific heat capacity 比热容	latent heat 潜热
specific latent heat of fusion 熔化比潜热	funnel n. 漏斗	beaker n. 烧杯
specific latent heat of vaporization 气化比潜热	latent heat of fusion 熔化潜热	thermometer n. 温度计
latent heat of vaporization 气化潜热	voltmeter n. 电压表	ammeter n. 电流表
electric heater 电加热器	substance 物质	gas law 气体定律
power supply n. 电源		thermal insulation 热绝缘材料
lagging n. 绝缘层材料	Charles' law 查理定律	The pressure law 压强定律
Boyle's law 波意耳定律		absolute zero 绝对零度
Gay-Lussac's law 盖吕-萨克定律		kelvin scale 开尔文温标
centigrade scale 摄氏温标	thermistor n. 热敏电阻	cold junction 冷端
temperature n. 温度计	hot junction 热端	range n. 量程
thermocouple n. 热电偶	linearity n. 线性度	radiation n. 辐射
sensitivity n. 敏感度	conduction n. 传导	convection n. 对流
accuracy n. 精度	rubber n. 橡胶	vacuum n. 真空
plastic n. 塑料		

## Glossary--waves

transverse wave 横波	longitudinal wave 纵波	stationary wave 驻波
frequency n. 频率	hertz n. 赫兹	wavelength n. 波长
law of reflection n. 反射	phase n. 相位	refraction n. 折射
diffraction n. 衍射	interference n. 干涉	superposition n. 叠加
crest n. 波峰	peak n. 波峰	trough n. 波谷
shallow water 浅水区	slit n. 狭缝	obstacle n. 障碍物
dense medium 波密介质	less dense medium 波疏介质	ripple tank 水波槽

## 美国新 10 年级暑期作业

the wave equation 波动方程	light n. 光波	incident light ray 入射光线
reflected light ray 反射光线	light n. 可见光	angle of incidence 入射角
angle of reflection 反射角	virtual image 虚像	real image 实像
laterally inverted 左右相反	upright adj. 正立的	infrared n. 红外线
refractive index 折射率	snell's law 斯涅耳定律	pitch n. 声调
total internal reflection 全反射	critical angle 临界角	concave lens 凹透镜
diverging lens 发散透镜 (凹透镜)	converging lens 会聚透镜 (凸透镜)	
convex lens 凸透镜	focal length 焦距	focus n. 焦点
electromagnetic spectrum 电磁波谱	principal axis 光轴	sound n. 声波
X-ray X 射线, 伦琴射线	gamma ray 伽马射线	loudness n. 响度
Ultraviolet n. 紫外线	microwave n. 微波	inverted adj. 倒立的
radio wave 无线电波		monochromatic light 单色光
microphone n. 扩音器	cathode ray oscilloscope 阴极射线示波器	
wavefront n. 波前		deep water 深水区

### Glossary--Electricity

electric charge 电荷	positive charge 正电	negative charge 负电
like charges 同种电荷	unlike charges 异种电荷	coulomb 库仑
elementary charge 原电荷	electroscope 验电器	potential 电势
electrostatic induction 静电感应	ebonite 硬橡胶	contact 接触
conductor 导体	insulator 绝缘体	electron 电子
electrostatic field 静电场	polythene 聚乙烯	proton 质子
electrostatic field strength 电场强度	conventional direction 约定方向	
electric lines of force / electric field lines 电力线/电场线	friction 摩擦	
uniform electric field 匀强电场	concentration 密集程度	
parallel plates 平行板	electric current 电流	
potential difference 电势差	electron flow 电子流	
cross-sectional area 横截面积	alpha particle 阿尔法粒子	
circuit component 电路元件	cross-section 横截面	
Ohm's Law 欧姆定律	electrical resistance 电阻	
combined/equivalent resistance 总电阻	series connection 串联	
parallel connection 并联	symbol (电路) 符号	
dissipate 消耗	electrical energy 电能	
electromotive force 电动势	battery 电池组	
A.c.supply 交流电源	earth connector 接地	
relay contact 继电器触点	ferromagnetic core 铁磁芯	
fixed resistor 定值电阻	milliammeter 毫安表	
variable resistor/rheostat 可变电阻	potentiometer/voltage divider 分压器	
voltmeter 电压表	ammeter 电流表	
galvanometer 检流计	capacitor 电容器	
diode/rectifier 二极管/整流器	signal lamp 信号灯	
amplifier 放大器	capacitor 电容器	
light sensitive resistor 光敏电阻	light sensitive diode 光敏二极管	
thermistor 电热调节器	light emitting diode 发光二极管	
	bell 电铃	multimeter 万用表



thermostat 恒温器	slider/adjustable contact 滑头/可调触点		
output 输出	input 输入	power station 供电站	hazard 危险
electric shock 电击	circuit breaker 断路开关	transmit 传输	
electronics 电子学		logic gate 逻辑门	

## Glossary--Magnetism

magnetically hard material 硬磁材料	magnetism 磁	magnetic element 磁性元素
magnetically soft material 软磁材料	magnetise 磁化	demagnetise 消磁
ferrous material 铁磁材料	non-ferrous material 非铁磁材料	
induced magnetism 感生磁	magnet 磁铁	magnetic field 磁场
region 区域	north pole 北极	south pole 南极
geographic north 地理北极	iron filings 铁屑	magnetic axis 磁轴
geographic south 地理南极	reverse 反向	compass 小磁针

## Glossary—Electromagnetic induction

current-carrying conductor 带电导体	The right-hand grip rule 右手定则
Fleming's left-hand rule 弗莱明左手定则	magnetic flux density 磁通密度
uniform circular motion 匀强磁场	Tesla 特斯拉
direct current 直流	splitting 裂环
commutator 换向器	coil 线圈
A.C. generator 交流发电机	soft iron 软铁
step-up transformer 升压变压器	rotation 旋转
step-down transformer 降压变压器	primary coil 元线圈
	transformer 变压器
	secondary coil 次线圈
	energy loss 能量损失

## Glossary--Atomic physics

Dalton's model 道尔顿模型	plum pudding model 枣糕模型
Rutherford's nuclear model 卢瑟福核式模型	zinc sulphide screen 硫化锌屏
detector 探测器	rebound 反弹/回弹
fluorescent 荧光的	shell 壳层
nucleus 核子	orbit 轨道
proton 质子	radium 镭
atomic number 原子序数	neutron 中子
proton number 质子数	isotope 同位素
lithium 锂	nuclear radiation 核辐射
nitrogen 氮	helium 氦
ionizing radiation 电离辐射	carbon 碳
a burst of 一阵/一股	boron 硼
alpha particle 阿尔法粒子	oxygen 氧
penetrating effect 穿透效应	uranium 铀
radioactive decay 放射性衰变	plutonium 钚
nuclear equation 核反应方程	stable 稳定
beta decay 贝塔衰变	potassium 钾
radioactive isotope 放射性同位素	gamma ray 伽马射线
half life 半衰期	back ground radiation 背景辐射
	alpha decay 阿尔法衰变
	emission 发射
	conserve 守恒
	decay series 衰变系
	product 产物

undecay 未衰变	spontaneous 自发的	random 随机的
unaffected 未受影响的	activity/radioactivity 放射性活度	detection 探测
becquerel 贝可(勒尔)	Geiger-muller tube 盖革-米勒(计数)管	
cathode ray oscilloscope 阴极射线显示计	electron beam 电子束	
electron gun 电子枪	vacuume chamber 真空室	thermionic emission 热发射
fluorescent screen 荧光屏	vacuum tube 真空管	automatical 自动
vertical 竖直的/垂直的	horizontal 水平的	display 显示
		time-base 时基

## Experiment # 1

A student suggests that mass, amplitude and length of string may each affect the period of a simple pendulum. In this practical you will investigate each of these factors.

**Aim:** To investigate the factors which might affect the period of a simple pendulum.

**Equipment:** masses, meter rule, stopwatch, length of string, clamp and retort stand.

### Method 1:

1. Set up a simple pendulum as shown in the diagram and start with a single mass. Pull the mass away from the vertical direction and release it. Time ten complete periods and record the time.

Retort stand and clamp

String

mass

Remember, one **period** is the time taken to swing backwards and forwards once.

2. Do this **three** times and calculate the average time for ten periods (10T). Then calculate the time for a single period (T).
3. Add an extra mass and repeat steps 1 and 2.
4. Add a third mass and repeat steps 1 and 2. Record your results in the table.

	Time for 10 periods (10t) /(s)			Average	Period
Mass total (g)	Tria 1	Trial 2	Trial 3	10T/(s)	T/(s)

**Conclusion:** Is the period **significantly** affected by the **mass** of the pendulum? Use your data to explain your answer.

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**Method 2:**

1. Set up a simple pendulum as shown in the diagram in **method 1**. with a mass. Set the pendulum swinging with **small amplitude (about 5cm from the vertical direction)**. Time ten complete periods and record the time. Do this **three** times.
2. Repeat step 1 with **a larger amplitude (about 15cm from the vertical direction)**.
3. Repeat step 1 with **an even larger amplitude (about 30cm from the vertical direction)**.

**Results:**

Remember to keep length and mass constant

	Time for 10 periods (10t) /(s)			Average	Period
Amplitude of swing (cm)	Trial 1	Trial 2	Trial 3	10T/(s)	T/(s)
<b>5</b>					
<b>15</b>					
<b>30</b>					

**Conclusion:** Is the period **significantly** affected by the **amplitude** of the pendulum? Use your data to explain your answer.

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### Method 3:

1. Set up a simple pendulum as shown in the diagram in **method 1.** with a mass. Change the length of the string. Firstly, choose **a short length (about 30cm)**. Set the pendulum swinging with small amplitude. Time ten complete periods and record the time. Do this **three** times.
2. Repeat step 1 with **a longer length (about 50cm)**
3. Repeat step 1 with **an even longer length (about 70cm)**.

### Results:

Remember to keep  
Amplitude and mass  
constant

Length of pendulum (cm)	Time for 10 periods (10T) /(s)			Average	Period
	Trial 1	Trial 2	Trial 3	10T/(s)	T/(s)
30					
50					
70					

**Conclusion:** Is the period **significantly** affected by the **length** of the pendulum?  
Use your data to explain your answer.

## Experiment #2

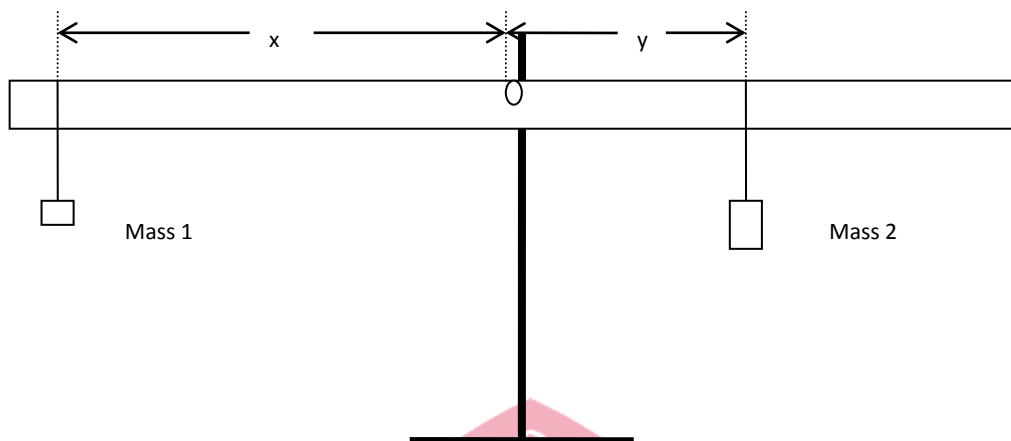
**Aim:** To investigate the 'Law of Moments' which states that for a beam to be balanced

the clockwise moments must equal the anti-clockwise moments.

**Equipment:** Stiff wooden meter rule with center hole at the 50cm mark, hook masses, elastic bands.

### Method:

1. Set up the retort stand and clamp a nail horizontally as shown in the diagram.



2. Hang the meter rule using the nail through the centre hole. Use some plasticine to 'balance' the rule.
3. Using the elastic bands, hang different masses one on either side of the center hole so that the meter rule is again balanced. Record the distances  $x$  and  $y$  in the table.
4. Repeat for five different pairs of masses and record their  $x$  and  $y$  distances.

**Note:** You will appreciate that technically we should change mass to **mg** i.e. force (N)

**Results:**

Complete the column headings

Mass 1/	Mass 2	$x /$	$y /$	$m_1 \cdot x /$	$m_2 \cdot y /$

**Conclusion:** Are the last two columns equal?, Write a suitable conclusion.

\_\_\_\_\_

\_\_\_\_\_



### Experiment # 3

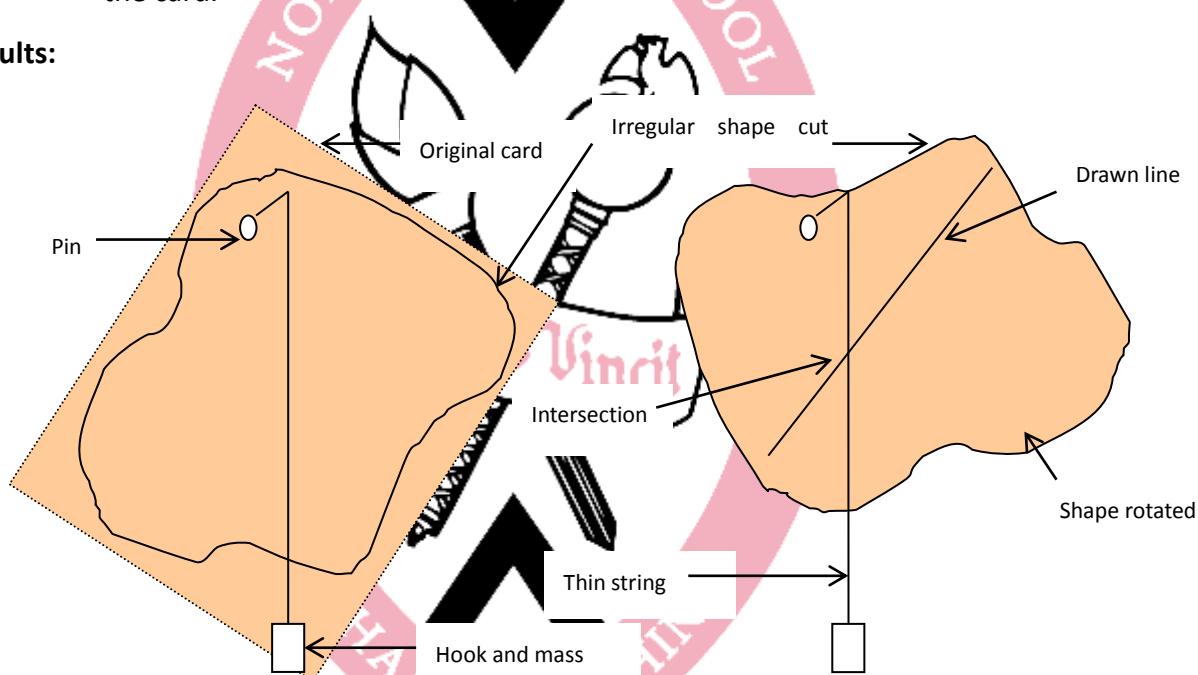
**Aim:** To find the center of mass of an irregularly shaped piece of card.

**Equipment:** scissors, pencil, fine string, mass, pin, piece of cardboard.

**Method:**

1. On the cardboard, draw a large irregular shape and cut it out.
2. Use the pin to make a hole near one edge of the cardboard and hang the hook and mass from this. Allow the card to swing freely on the pin. Mark the position of the string, then, having removed the string and pin, draw a line on the card showing where the string was.
3. Repeat steps 1 and 2 having made a hole at another place on the edge of the card.

**Results:**



4. If a pin is placed at the intersection of these two lines it should be at the **center of mass** of the irregular shape. How would you **know** if the intersection **is** the center of mass?

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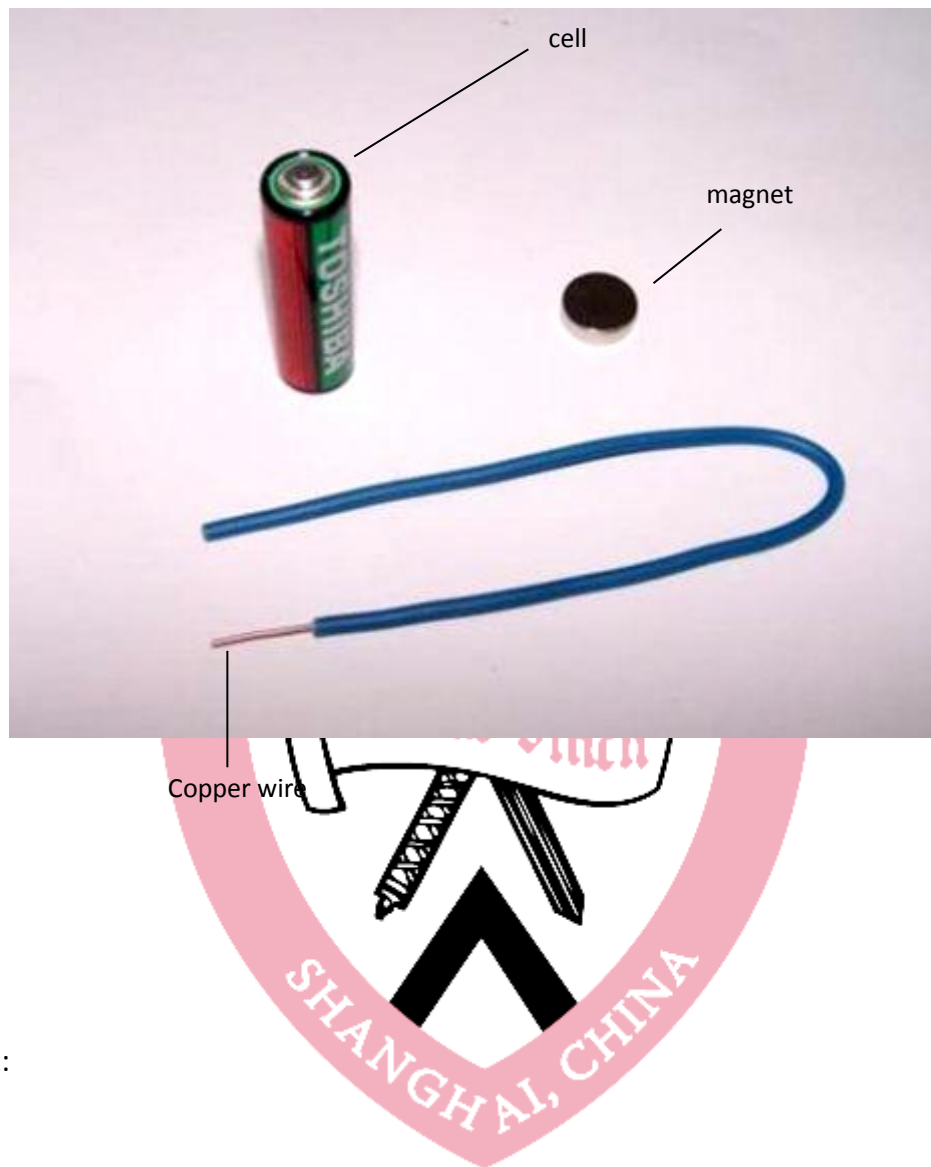
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**Conclusion:** Write a conclusion for this practical.

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## Experiment #4 Electric motor

**Equipment:** a cell, a magnet, copper wire.

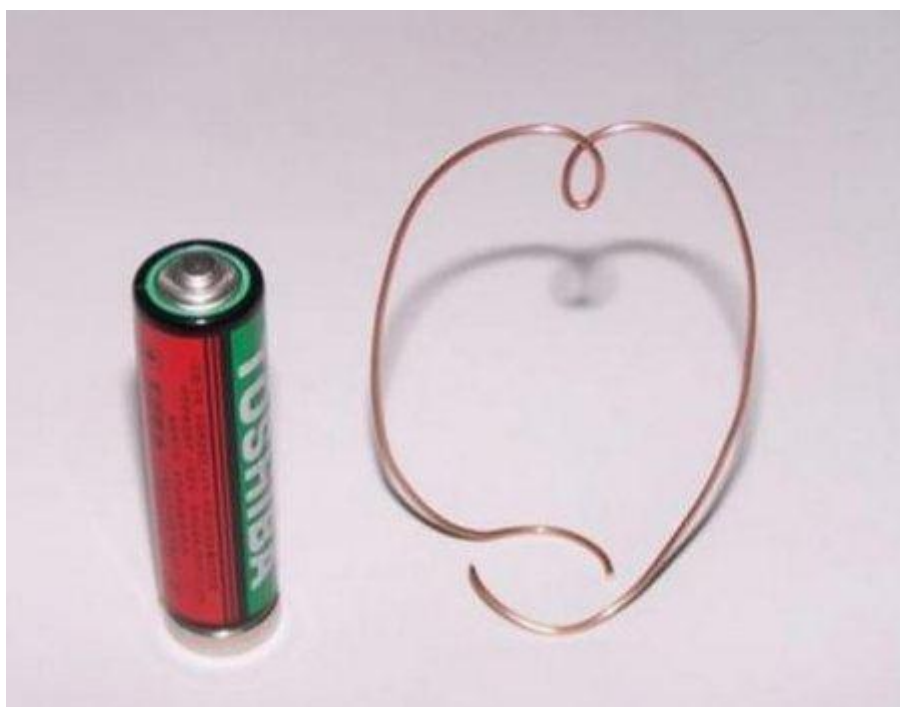


Step 1:

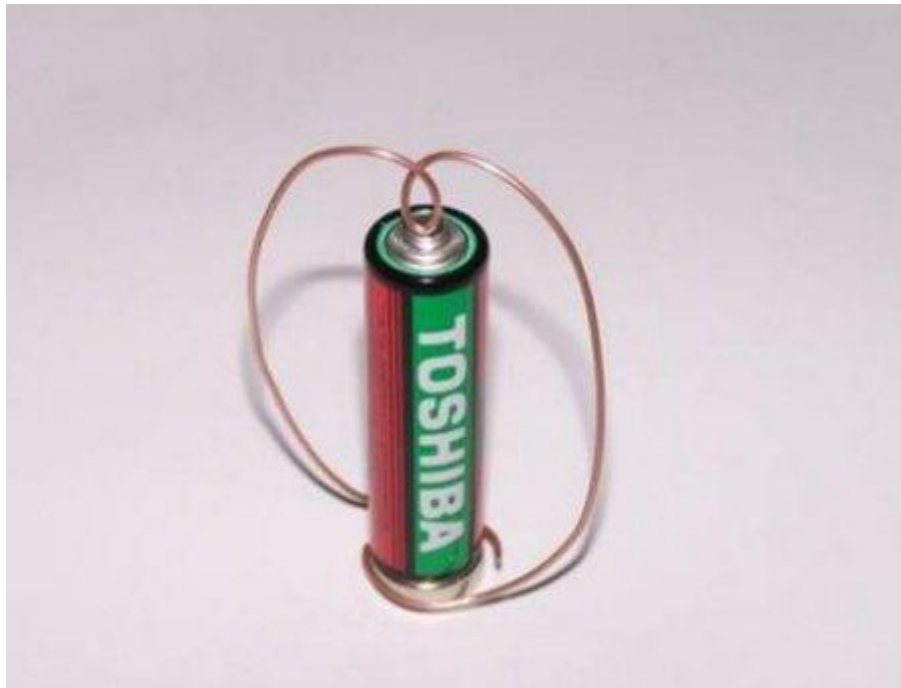


Step 2:

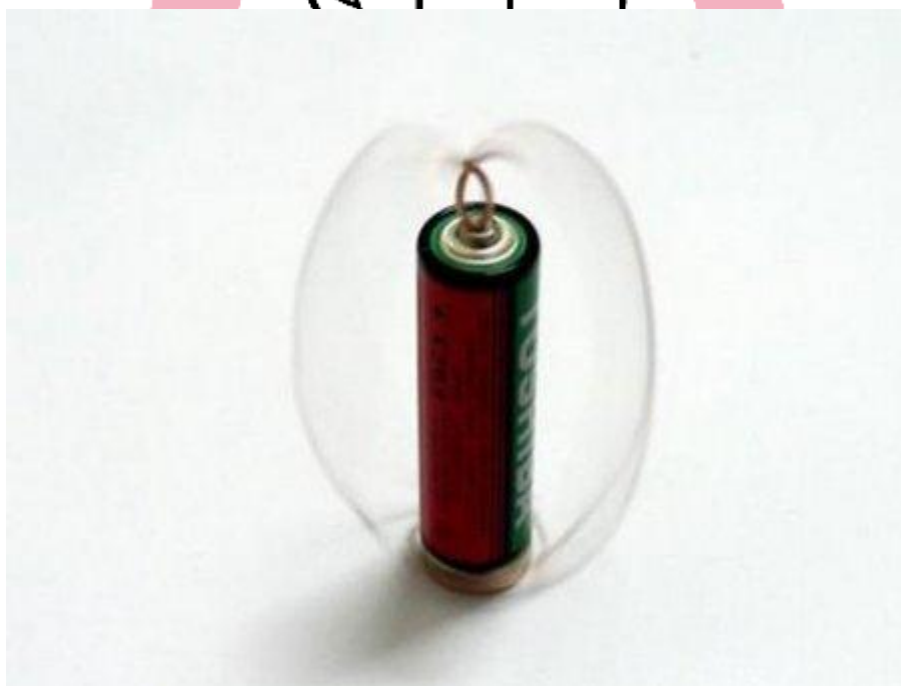




Step 3:



Step 4: Connect the circuit





## Chemistry

melting

chemical change

sublimation

condensation

evaporation

dissolving

1. Which of the terms given in part a best describes what is taking place in each of the following?

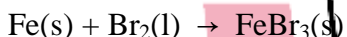
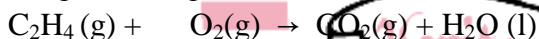
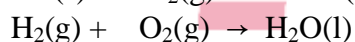
i The formation of water droplets on the inside of a window on a cold day.

ii The formation of liquid potassium chloride from solid potassium chloride using strong heat

iii The formation of iodine vapour from solid iodine on heating.

iv Adding sugar to hot coffee to sweeten the drink ..

2. Balance the following equations. Some of the spaces should be left blank .



3. Draw diagrams to show the bonding in each of the following ionic compounds.

a. lithium chloride (LiCl)

b. calcium sulfide (CaS)

4. Draw diagrams to show the bonding in each of the following covalent compounds.

a. hydrogen fluoride (HF)

b. nitrogen trichloride (NCl<sub>3</sub>)

5. A student carried out a reaction between iron and hydrochloric acid to make some iron(II) chloride crystals. She started with 5.6g of iron and used an excess of hydrochloric acid.

- ii How many moles of Iron did she start off with?
- iii What mass of iron(II) chloride could she have expected to obtain from this reaction?
- iv She actually obtained 9.17g of the iron(II) chloride. What was her percentage yield?

6. Write word and balanced chemical equations for the reactions between each of the following pairs of substances.

a. sodium carbonate and nitric acid

b. magnesium and hydrochloric acid

7. The diagram below shows some reactions of iron. Name and give the formulae of the substances P to T shown in the diagram.

i Write a balanced chemical equation for the reaction.



- a. solid P \_\_\_\_\_
- b. rust-brown precipitate Q \_\_\_\_\_
- c. solution R \_\_\_\_\_
- d. gas S \_\_\_\_\_
- e. white precipitate T \_\_\_\_\_

8. Write down the names of two chemical solutions that could be added together to form each of the following insoluble salts by a precipitation reaction.

i silver chloride .. \_\_\_\_\_

ii barium sulfate .. \_\_\_\_\_

iii calcium carbonate .. \_\_\_\_\_

9. Fill in the blanks in the table (one column per element).

Symbol	$^{65}\text{Cu}$	$^{86}\text{Kr}$	Pt	Kr
Number of protons			78	36
Number of neutrons			117	46
Number of electrons in the neutral atom				36
Name of element	copper			

## English

### Mock test 1

1. Simple photographic lenses cannot \_\_\_\_\_ sharp, undistorted images over a wide field.
- (A) to form      (B) are formed      (C) forming      (D) form
2. Of all the factors affecting agricultural yields, weather is the one \_\_\_\_\_ the most.
- (A) it influences farmers      (B) that influences farmers  
(C) farmers that it influences      (D) why farmers influence it
3. Beverly Sills, \_\_\_\_\_ assumed directorship of the New York City Opera in 1979.
- (A) be a star soprano      (B) was a star soprano  
(C) a star soprano and      (D) a star soprano
4. \_\_\_\_\_ of tissues is known as histology.
- (A) Studying scientific      (B) The scientific study  
(C) To study scientifically      (D) That is scientific studying
5. With the exception of mercury, \_\_\_\_\_ at standard temperature and pressure.
- (A) the metallic elements are solid      (B) which is a solid metallic element  
(C) metallic elements being solid      (D) since the metallic elements are solid
6. Potential dehydration is \_\_\_\_\_ that a land animal faces.
- (A) the often greatest hazard      (B) the greatest often hazard

(C) often the greatest hazard

(D) often the hazard greatest

7. By tracking the eye of a hurricane, forecasters can determine the speed at which \_\_\_\_.

(A) is a storm moving

(B) a storm is moving

(C) is moving a storm

(D) a moving storm

8. The grapes of Wrath, a novel about the Depression years of the 1930's, is one of John Steinbeck's \_\_\_\_ books.

(A) most famous

(B) the most famous

(C) are most famous

(D) and most famous

9. Technology will play a role in \_\_\_\_ future life-styles.

(A) to shape

(B) shaping

(C) shape of

(D) shaped

10. The computer has dramatically affected \_\_\_\_ photographic lenses are constructed.

(A) is the way

(B) that the way

(C) which way do

(D) the way

11. The early railroads were \_\_\_\_ existing arteries of transportation: roads, turnpikes, canals, and other waterways.

(A) those short lines connected

(B) short lines that connected

(C) connected by short lines

(D) short connecting lines

12. \_\_\_\_ as a masterpiece, a work of art must transcend the ideals of the period in which it was created.

(A) Ranks

(B) The ranking

(C) To be ranked

(D) For being ranked

13. Jackie Robinson, \_\_\_\_ to play baseball in the major leagues, joined



the Brooklyn Dodgers in 1947.

- (A) the Black American who first      (B) the first Black American  
(C) was the first Black American (D) the first and a Black American who

14. During the flood of 1927, the Red Cross, \_\_\_\_\_ out of emergency headquarters in Mississippi, set up temporary shelters for the homeless.

- (A) operates      (B) is operating      (C) has operated      (D) operating

15. In bacteria and in other organisms, \_\_\_\_\_ is the nucleic acid DNA that provides the genetic information.

- (A) both      (B) which      (C) and      (D) it

16. Twenty to thirty year after a mature forest is cleared away, a nearly impenetrable thicket of trees and shrubs develops.

17. The first national park in world, Yellowstone National Park, was established in 1872.

18. Because it does not have a blood supply, the cornea takes their oxygen directly from the air.

19. Magnificent mountains and coastal scenery is British Columbia's chief tourist attractions.

20. Scientists at universities are often more involved in theoretical research than in practically research.

21. John Rosamond Johnson he composed numerous songs, including Life Every Voice and Sing, for which his brother, James Weldon Johnson, wrote the words.

22. Nylon, a synthetic done from a combination of water, air, and a by-product of coal, was first introduced in 1983.
23. Ornithology, the study of birds, is one of the major scientific fields in which amateurs play a role in accumulating, researching, and publish data.
24. Animation is a technique for creativity the illusion of life in inanimate things.
25. The nonviolent protest advocated by Dr. Martin Luther King proving highly effective in an age of expanding television news coverage.
26. On December 7, 1787, Delaware became a first state to ratify the Constitution.
27. Nutritionists believe what diet affects how one feels physically and emotionally.
28. Jili Kalama, creator of over 400 Hawaiian quilts was granted a National Heritage Fellowship in 1985 for her contributions to folk and art.
29. A jetty serves to define and deepen a channel, improve navigate, or protect a harbor.
30. Minoru Yamasaki is an American architect which works departed from the austerity frequently associated with architecture in the United States after the Second World War.
31. Chemical research provides information that is useful when the textile

industry in the creation of synthetic fabrics.

32. Jane Addams, social worker, author, and spokeswoman for the peace and women's suffrage movements, she received the Nobel Peace Prize in 1931 for her humanitarian achievements.

33. Bromyrite crystals have a diamond-like luster and are usually colorless, but they dark to brown when exposed to light.

34. Stars in our universe vary in temperature, color, bright, size and mass.

35. Ice is less denser than liquid from which it is formed.

36. The 1983 Nobel Prize in Medicine was awarded to Barbara McClintock for her experiments with maize and her discoveries regardless the nature of DNA.

37. In 1866 to 1883, the bison population in North American was reduced from an estimated 13 million to a few hundred.

38. Most of the damage property attributed to the San Francisco earthquake of 1906 resulted from the that followed.

39. James Baldwin's plays and short stories, which are to some degree autobiographical, established them as a leading figure in the United States civil rights movement.

40. Thunder can be listened from a maximum distance of about ten miles except Under unusual atmospheric conditions.

### Mock test 2

1. Helium is \_\_\_\_\_ all gases to liquefy and is impossible to solidify at

normal air pressure.

- (A) more than difficult (B) the most difficult of  
(C) more difficult of (D) most difficult

2. Every year Canadian \_\_\_\_\_ about 75 percent of their exports to the United States.

- (A) businesses that sell (B) selling businesses  
(C) businesses sell (D) that sell to businesses

3. An innovator, ballerina August Maubouss was \_\_\_\_\_ a traveling company.

- (A) to form the first (B) the first to form  
(C) who formed the first (D) forming the first

4. When water freezes in the cracks of rocks, \_\_\_\_\_ expands, causing the rocks to break apart.

- (A) it (B) but (C) then (D) and

5. With x-ray microscopes scientists can see through live insects \_\_\_\_\_ even through solid pieces of metal.

- (A) however (B) nevertheless (C) or (D) yet

6. Dennis Chavez of New Mexico \_\_\_\_\_ to the House of Representatives in 1930 and to the Senate in 1938.

- (A) when elected (B) elected (C) who was elected (D) was elected

7. \_\_\_\_\_ are not leached out of soil, reclamation procedures are needed

to restore the land's productivity.

- (A) For concentration of salt                      (B) Salt concentrations that  
(C) If salt concentrations                      (D) With concentrations of salt

8. \_\_\_\_\_ social crusade aroused Elizabeth Williams' enthusiasm more than the expansion of educational facilities for immigrants to the United States.

- (A) No                      (B) Nothing                      (C) Not                      (D) None

9. \_\_\_\_\_ as 2500 B.C., the Egyptians used mirrors made of highly polished metal.

- (A) In early                      (B) As early                      (C) Early                      (D) Was as early

10. The quantum theory states \_\_\_\_\_, such as light, is given off and absorbed in tiny definite units called quanta or photons.

- (A) energy that                      (B) that it is energy                      (C) it is energy                      (D) that energy

11. Quails typically have short rounded wings that enable \_\_\_\_\_ spring into full flight instantly when disturbed in their hiding places.

- (A) they                      (B) to their                      (C) its                      (D) them to

12. Geysers are found near rivers and lakes, where water drains through the soil \_\_\_\_\_.

- (A) surface below the deep                      (B) deep below the surface  
(C) the deep below surface                      (D) the deep surface below

13. Algebra generalizes certain basic laws \_\_\_\_\_ the addition, subtraction, multiplication, and division of all numbers.



(A) govern

(B) that govern

(C) have governed

(D) which they govern

14. Even at low levels\_\_\_\_\_

(A) the nervous system has produced detrimental effects by lead

(B) lead's detrimental effects are producing the nervous system

(C) lead produces detrimental effects on the nervous system

(D) the detrimental effects produced by lead on the nervous system

15. \_\_\_\_\_ a lonely and rugged life far from home and family.

(A) However the early gold prospector often lived

(B) The early gold prospector often lived

(C) Not only did the early gold prospector often live

(D) The early gold prospector often living

16. The culinary expert Fannie Farmer taught dietetics, kitchen management, and to cook at her famous Boston school.

17. The elephant relies more on its sense of smell than for any other sense.

18. A few of the naturally elements exist in such small amounts that they are known mainly from laboratory-made samples.

19. Some insects hear ultrasonic sounds more than two octaves than

higher humans can.

20. Because of its larger size, the United States House of Representatives is more impersonal, hierarchical, and specialization than the Senate.

21. To stay warm in cold weather cold-blooded animals must expose itself to a source of warmth such as direct sunlight.

22. A severe illness where she was just nineteen months old deprived the well-known writer and lecturer Helen Keller of both her sight and her hearing.

23. Like all ecological systems, a forest is made up of a living environment and a nonliving environment, the latter composed of air, rocks, soiled, and water.

24. The purposeful of the elementary school is to introduce children to the skills, information, and attitudes necessary for a smooth adjustment to society.

25. Notorious as a host for wheat rust, the barberry bush has been banned from many area.

26. Christopher Plummer is a Canadian actor who has starred in stage, television and film productions on both sides the Atlantic Ocean.

27. A microphone enables musical tones to be amplified, thus making it possible the gentle renditions of soft songs in large halls.

28. The poetry of e.e. cummings illustrates the way in which some poets bend grammatical rules as they strive to expression their insights.

29. In the wild, tea plants become trees of approximately thirty feet in high.

30. Accounting is described as art of classifying, recording, and reporting significant financial events.

31. The development of the watch depended upon the invent of the mainspring.

32. The ordeal of the Cherokee Indians who were forcible moved from their homeland in the 1830's is remembered as the “Trail of Tears.”

33. Physical fitness activities can lead to an alarming variety of injuries if

participants push themselves greatly hard.

34. The structure but behavior of many protozoans are amazingly complex for single-celled animals.

35. Alaska' s rough climate and terrain divide the state into isolated regions, making highway maintenance difficulty.

36. For hundreds of years, sailors relied on echoes to warn them of another ships, icebergs or cliffs in foggy weather.

37. Although he is employed in the scientific and technical fields, the metric system is not generally utilized in the United States.

38. Prototypical oboes did a loud, harsh tone, but the modern oboe is appreciated for its smooth and beautiful tone.

39. Beneath the deep oceans that cover two-thirds of the Earth, intriguing secret of the planetare concealed.

40. The pioneer John Chapman received the “Johnny Appleseed” because he planted apple seedlings during him travels in what are now

Ohio, Indiana, and Illinois.

Mock test 3

1. Cobalt resembles iron and nickel in tensile strength, appearance, ---.
- (A) is hard    (B) although hard    (C) has hardness    (D) and hardness
2. --- who was the first Black woman to run for the office of President of the United States in 1972.
- (A) Shirley S. Chisholm    (B) It was Shirley S. Chisholm  
(C) Shirley S. Chisholm was    (D) When Shirley S. Chisholm
3. --- versatile performer, soprano Kathleen Battle has often concluded a program of art songs and arias with selections from ragtime or popular music.
- (A) A    (B) Which    (C) So    (D) Because
4. Before starting on a sea voyage, prudent navigators learn the sea charts, ---, and memorize lighthouse locations to prepare themselves for any conditions they might encounter.
- (A) sailing directions are studied    (B) study the sailing directions  
(C) to direct sailing studies    (D) studies direct sailing
5. --- social nesting birds that build their nests in trees and on cliffs.
- (A) The most storks    (B) Most are storks  
(C) Most storks are    (D) Storks most
6. Plankton, ---, is the basic foodstuff for everything that lives in the

ocean.

(A) comprise both minute marine animals and plants

(B) is the name given to minute marine animals and plants

(C) the collective name for minute marine animals and plants

(D) minute marine animals and plants collectively that

7. The best-known diffuse nebula is the great Orion Nebula,--- can be seen by the naked eye.

(A) one

(B) it

(C) which

(D) who

8. Of all the economically important plants, palms have been --- .

(A) the least studied

(B) study the least

(C) study less and less

(D) to study the less

9. Most amphibians hatch from eggs laid in water or moist ground, and begin life --- water-dwelling larvae.

(A) such

(B) as

(C) to be

(D) are

10. At the Seventh International Ballet Competitions, Fernando Bujones won the first gold medal ever --- to a United States male dancer.

(A) to be awarded

(B) to award

(C) that awards

(D) should be awarding

11. Founded around 1075, the Acoma pueblo is considered --- settlement in the United States.

(A) the oldest continuously occupied

(B) occupied continuously the oldest

(C) the oldest occupied continuously

(D) continuously the oldest occupied

12. On March 1, 1867, --- to the Union when President Andrew Johnson's veto was overridden.

(A) since the state of Nebraska had been admitted

(B) admitted that the state of Nebraska

(C) the admission of the state of Nebraska

(D) the state of Nebraska was admitted

13. The best known of all the Arctic birds, ---

(A) birdwatchers favor ptarmigans

(B) being ptarmigans and birdwatchers' favorites

(C) favored by both ptarmigans and birdwatchers

(D) ptarmigans are a favorite of birdwatchers

14. Nearly all trees contain a mix of polymers that can burn like petroleum --- properly extracted.

(A) after

(B) if

(C) when it

(D) is

15. Acute hearing helps most animals sense the approach of thunderstorms long before people --- .

(A) do

(B) hear

(C) do them

(D) hearing it

16. Emily Dickinson, one of the greatest poets of the United States, was entirely almost unknown to the people of her own time.

17. Charcoal is employed widely as a deodorizer because it absorbs gases



good.

18. Abstract Expressionism was a movement in American painting that flourished from the mid-1940's and mid 1950's.

19. The National Cowboy Hall of Fame in Oklahoma City pay tribute to everyone associated with what Americans call the “Old West.

machine that registers difference brain waves in a sleeping individual.

21. The Obie Awards have been given annually for 1956 to outstanding artists in off-Broadway theater.

23. Because geophysics embraces the concepts, data, and methods of variety other sciences, it is very board in scope, and its boundaries are hard to define.

24. A white oak at Rutgers University is said to had been the inspiration for Joyce Kilmer's poem “Trees”

25. Starfish move, feed, and breathe with their tube feet.

26. The Whitney Museum continues to reflect the diversity of the art of the United States in all of it acquisitions.

28. Despite the broad acclaim of him novels, James Baldwin is most highly respected as an essayist and social critic.

29. Along the East Coast, American Indian women’ s councils could vote a declaration of war at refusing to supply moccasins and field rations.

30. In proportion to its size, the hungriest animal is the shrew, which must consume several times their own weight every day.

knowledge which learned by living there for many years.

32. North America has eight time zone, ranging from Newfoundland on the East Coast to Alaska on the West Coast.

33. Historians believe that some forms of an advertising must be as old as as barter and trade.

34. Although fluorine tests and x-ray analyses, archaeologists can prove the validity of artifacts.

35. Dams are used to control flooding, provide water for irrigation, and generating electricity for the surrounding area.

36. The development of photographic techniques and equipment provided an important aid to industry, medical, and research.

37. United States tennis championship Pancho Gonzales gained international acclaim for his strong serve.

38. Many television newscasters make the public an eyewitness to the news by means of on-the-spot, alive reports.

39. Certain zoologists regard crows and ravens are the most intelligent of birds.

40. While the twentieth century, the field of dentistry has developed braches that specialize in the treatment of individual dental problems

Mock test 4

1 .Hanya Holm is a doctor, choreographer, and ---.

(A) dance that she teaches

(B) her teaching of dance

- (C) to teach dancing                      (D) dance teacher
2. During an eclipse of the Sun, --- in the shadow of the Moon.
- (A) the Earth lies                      (B) the Earth when lying
- (C) that the Earth lies                      (D) the lying Earth
3. Under the influence of Ezra Pound, Hilda Doolittle became associated with the Imagists and--- into one of the most original poets of the group.
- (A) developed                      (B) to be developed
- (C) who developing                      (D) developing it
4. --- all rainwater falling from a cloud reaches the ground; some of it is lost through evaporation.
- (A) Nowhere                      (B) Not                      (C) No                      (D) None
5. In an area first explored by Samuel de Champlain, ---.
- (A) establishment of the city of Halifax in 1749
- (B) in 1749 the city of Halifax established
- (C) in 1749,establishing the city of Halifax
- (D) the city of Halifax was established in 1749
6. A nation's merchant marine is made up of its commercial ships and the people --- them.
- (A) they operate                      (B) who operate
- (C) they operate of                      (D) do they operate
7. -- Nat Turner who led a revolt against slavery in Virginia in 1831.
- (A) Where was                      (B) It was                      (C) He was                      (D) That he was

8. The most elaborate of all bird nests ---, domed communal structure built by social weaverbirds.

- (A) larger      (B) largely is      (C) the large      (D) is the large

9. William Walker's mural, "Wall of Respect", --- an outdoor wall in Chicago, deals with social issues.

- (A) covers      (B) covers it      (C) which covers      (D) which it covers

10. Studies of the gravity field of the Earth indicate --- yield when unusual weight is placed on them.

- (A) although its crust and mantle      (B) its crust and mantle to  
(C) that its crust and mantle      (D) for its crust and mantle to

11. The columbine flower, --- to nearly all of the United States, can be raised from seed in almost any garden.

- (A) native      (B) how native is  
(C) how native is it      (D) is native

12. The photoperiodic response of plants actually depends on the duration of darkness, ---.

- (A) the light is not on      (B) and not on light  
(C) but is not on the light      (D) is not on light

13. ---, the first Black denomination in the United States.

- (A) Richard Allen founded the African Methodist Episcopal Church  
(B) Richard Allen, who founded the African Methodist Episcopal Church  
(C) The African Methodist Episcopal Church founded by Richard Allen

(D) The foundation of the African Methodist Episcopal Church by Richard Allen

14. The annual worth of Utah's manufacturing is greater than --- .

(A) that of its mining and farming combined

(B) mining and farming combination

(C) that mining and farming combined

(D) of its combination mining and farming

15. The wallflower --- because its real stems often grow on walls and along stony cliffs for support.

(A) so called is (B) so is called (C) is so called (D) called is so

16 The tongue is capable of many motions and configurations and plays a vital role in chewing, swallowed, and speaking.

17. Instead of being housed in one central bank in Washington, D.C, the Federal Reserve system is division into twelve districts.

18. Philodendrons of various kinds cultivated for their beautifully foliage.

19. Kiwi birds mainly eat insects, worms, and snails and to search for their food by probing the ground with their long bills.

20. William Penn founded the city of Philadelphia in 1682, and he quickly grew to be the largest city in colonial America.

21. Fewer people reside in Newfoundland than in other any Canadian province except Prince Edward Island.

22. Dr. Mary McLeod Bethune, the founder of Bethune-Cookman college, served as advice to both Franklin Delano Roosevelt and Harry Truman.

23. Some plant produce irritating poisons that can affect a person even if he or she merely brushes against them.

24. The rotation of the Earth on its axis is responsible the alternation of periods of light and darkness.

25. Anne Elizabeth McDowell is best remembered for a weekly journal, Woman's Advocate, who she launched in January 1855.

26. In every society there are norms that say individuals how they are supposed to behave.

27. An erupting volcano or an earthquakes sometimes affected the featured of the surrounding region and can even cause lakes to disappear.

28. Most tree frogs change color to harmonize with its background.

29. Due to the refraction of light rays, this is impossible for the naked eye to determine the exact location of stars close to horizon.

30. Modern poets have experimented with poetic devices such alliteration and assonance.

31. Birds eggs vary greatly of size, shape, and color.

32. Social reformer Frederick Douglass dedicated his life to working for the abolish of slavery and the fight for civil rights.

33. Mount Edith Cavell, a peak in the Canadian Rockies, is named after a famous nurses.

34. Xanthines have both good and bad effect on the body, and these effects are generally determined on the size and regularity of dosage.
35. When a severe ankle injury forced herself to give up reporting in 1926, Margaret Mitchell began writing her novel Gone with the wind.
36. One of the most difficult problems in understanding sleep is determining what the functions of sleep is.
37. The Millicent Rogers Museum houses five thousands pieces of Hispanic and American Indian jewelry, pottery, and other objects documenting the vibrancy of these cultures.
38. Seven of planets rotate in the same direction as their orbital motions, while Venus and Uranus rotate in the opposite direction.
39. In the United States voters election representatives to the national legislature, which consists of the House of Representatives and Senate.
- 40 It is the interaction between people, rather than the events that occur in their lives that are the main focus of social psychology.

Translation

### I. “and”

1. 人们年年到那儿去植树，现在人们相信这片森林越来越大了。(believe)
2. 我们利用去那所大学参观的机会大致了解了一下该校英语系的情况。(take advantage of)
3. 他的睡眠取决于周围环境，只要有一点吵闹声她就整夜合不上眼。(stay awake)
4. 这对夫妻不得不忍受失去孩子的痛苦并抓住一切机会寻找孩子。(put up with, loss)



5. 他充分利用每分每秒，决心把失去的时间弥补回来。(make up for)
6. 客观考试主要指的是选择题，它的优点是公正。(refer to)
7. 中国地域广阔，人口众多，有五十六个民族。(in area)
8. 这种新型号的冰箱可以节电50%，而且价格相对便宜。(relatively)
9. 那场大雾直到11 点钟才散去，延误了好几十个航班。(not ... until)
10. 那个地区终年无雨，几乎没有什么植物可以在这个地区生存。(survive)
11. 经理今天情绪不好，我刚才被他平白无故骂了一顿。(scold)
12. 从中国进口的鞋子价廉物美，受到当地游客的欢迎。(popular)
13. 多做义工，将会更容易让他人发现你的优点或者亮点。(and)

## II. “but”

1. 这位科学家试验了各种材料，但没有一种使他满意。(satisfy)
2. 小偷想拿了偷来的钱溜走，但被警察抓住了。(make off)
3. 他缺席了很久，但他会补上损失的时间的。(make up for)
4. 虽然这药物能够减轻你的头疼，但是我认为它不能完全根除你的疾病。(get rid of)
5. 每个学生每星期被指定做一篇作文，但如果他想多写些也可以。(assign)
6. 在许多机器中塑料零件可以代替金属(零件)，但它们并不很耐用。(substitute, last)
7. 这两个画框我不都喜欢，而那两个画框我都不喜欢。(neither)
8. 他并没讲很长时间，但是他讲得完全到点子上了。(to the point)
9. 虽然电影院近在咫尺，可她到了马路口却不知该朝哪儿走才好。(a stone's throw, at a loss)
10. 一个人的高贵，不取决于他的财富，而取决于他的人品。(what)
11. 圣诞之夜，我收到许多来信，但其中有一封既没有日期又没有署名。(bear)
12. 我没帮上他的忙，但他说他还是非常感激我。(same)

13. 我们可以在大部分中国报纸上读到关于美国总统的报道，但它们不被当作重要新闻，一般不会上头版。(report, consider)
14. 我还没有做出这道题目，但我正在做。(work on)
15. 我理解你的困难，但却爱莫能助。(appreciate)
16. 教练让史密斯替换迈克，但史密斯打得更差。(substitute)
17. 这中药闻起来有些怪味，但治疗感冒非常有效。(effective)
18. 放射性物质既可以造福人类，也会给人类带来灾难。(benefit)
19. 这首乐曲我非常熟悉，但我讲不出是谁写的曲。(be familiar)
20. 这对双胞胎外貌很相似，但他们的性格却完全不同。(look alike)
21. 我本想在店里消磨时间的，但结果买了好几件工艺品。(end up)
22. 这两个动物外貌很相似，但它们属于不同的种类。(similar)
23. 他本想在店里消磨时间，但结果却买了各种各样他感兴趣的东西。(end up by)
24. 我以前常和我父亲去度假，但今年我已决定独自去。(on one's own)
25. 贝多芬是孤独，也经常不快乐，尽管如此，他还是创作了令人欢欣鼓舞的乐曲。(joyful)
26. 我很想告诉你有关这事件的更多事情，但现在实在抽不出时间。(spare)
27. 他在实验中多次失败，但他相信失败是成功之母。(fail)
28. 汤姆是一个合格的大学毕业生，但是他在上周的工作面试中的表现不尽如人意。
29. 他的计划听上去了不起，可是执行起来却一定会困难重重。(carry)
30. 一般说来“便宜没好货”，但这并非一定如此。(necessarily)
31. 她康复的希望似乎很小，然而医生们还在尽力而为。(however)
32. 这学期尚未结束，他们已在计划夏季旅行了。(come to)

33. 起初他认为凭他的技术不难找到工作，然而事实并非如此。(case)
34. 这所学校缺三名教师，但迄今为止没有一个人前来申请。(vacancy)
35. 有人出一千美元买我那辆旧车，可它的价值远不止此。(offer)
36. 人家好声好气地劝他，他倒不耐烦起来了。(become)
37. 他想取悦听众，吸引他们的注意力，但他没有成功。(intend)
38. 听起来似乎是个不错的建议，但是真的能解决问题吗?(sound)

### III. “so”

1. 一个警察必须又强壮又机智，所以不是每个人都适合于干警察这工作的。(suitable)
2. 他心中有了明确的目标，所以他决心为人民的利益奋斗一生。(for the good of people)
3. 她在英语方面不亚于任何人，我们选她为英语课代表。。(second to none)
4. 你没有做违法的事，因此不必感到内疚。(against)
5. 他住在第五大街18号二楼，你不必坐电梯。(take)
6. 每个人都要为自己做的事负责，因此任何人犯法都要受到法律的惩罚。(responsible)
7. 人人生来平等，因此我们决不能看不起那些出身贫寒的人。(look down)
8. 这家商店没有蓝衬衫的现货，所以约翰买了白色的。(in stock)
9. 人的一生不可能总是一帆风顺，我们要以积极的态度面对生活中的困难。(smooth)
10. 他母亲病了，你现在最好对此事只字不提。(had better)
11. 各人可以有自己的意见，所以你最好不要设法去说服别人。(try)
12. 他对交通法规置若罔闻，所以这起事故不可避免。(ignore)
13. 上海近些年来发生了巨大的变化，取得了举世瞩目的成就，因此很多国外公司来投资。

**V. “or”**

1. 可惜你没有及时通知他，否则他一定会获奖的。(inform)
2. 近视眼的学生应该戴合适的眼睛，否则视力会越来越差。(wear)
3. 别对他的期望太高，不然你会失望的。(otherwise)
4. 再尝试与他沟通一次，否则只能采取措施防止他独自外出。(or)

**VI. “for”**

1. 他故意避开这次会议，因为他不想让自己卷入这场争执。(get ... involved)
2. 那些登山者一定出事了，他们本该一小时前回到营地的。(happen)
3. 她把手指放在嘴唇上示意肃静，因为有人在警告说河水上涨了两英尺。(raise, rise)
4. 你看上去很困倦，你昨天一定熬夜了。(stay up)
5. 他不习惯住在高速公路旁，不能忍受窗外的各种噪音。(be used to)
6. 别吃太多的冰淇淋，这不仅伤胃而且会使人肥胖。(hurt)
7. 那些来自北大的五个登山者一定出事了，他们本该一小时前回到营地的。(for)
8. 他不能总陪伴在他的父母身旁，因为他的工作要求他经常出差。(involve)
9. 她叫我不要走远，因为晚饭马上就要烧好了。(within)
10. 他用手指放在嘴唇上示意肃静，因为孩子正在睡觉。(sign)
11. 我不喜欢看这类电视剧，因为它们都千篇一律。(pattern)

**VII. 其他**

1. 这男孩不听他母亲的话，结果他丢了所有的钱。(as a result)
2. 我们不准备放弃那架发动机。相反，我们将要改造它，使它更好地工作。(on the contrary)
3. 大火不仅毁灭了那幢大楼，而且毁了附近的小屋子。(destroy)
4. 如果你看一下地图册，你就很容易发现美国的主要河流都是从北向南流的，而中国的主要河流则是从西向东流的。(principal river, run)

## 美国新 10 年级暑期作业

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5. 人离不开空气就像雨离不开水一样。(what)
6. 肥料对于作物来说如同维生素对于我们来说那样重要。(what)
7. 要么你必须改进工作，要么我就解雇你。(either ... or)
8. 他先把蛋糕分成两块，然后她把每块分成四小块。(divide into)
9. 学习就如逆水行舟，不进则退。(either ... or ...)
10. 那个总工程师既谦虚又平易近人，总是将自己的成功归功于同事们的帮助。(owe)
11. 青年人不应该回避困难，相反，应该千方百计克服它们。(contrary)
12. “我很喜欢这故事。”“恰恰相反，我不喜欢它。我认为它荒唐。”(on the contrary)

