



学术英语写作

Scientific Writing

第五章 语法知识

一

词类

二

插入语、否定、时态、语态

三

动词非谓语形式

四

从句



一、词类：冠词

➤ 一般应加冠词的情况

□ 在单数可数名词前一般要有冠词，泛指时多用不定冠词

用a还是an，取决于不定冠词后紧跟的第一个音素(而不是第一个字母)

- ✓ This is **an** n-valued function.
- ✓ **A** magnet has an S pole and an N pole.
- ✓ Sudden changes of voltage in **an** RLC circuit may produce ringing.
- ✓ This is **an** 8-volt battery.
- ✓ **A** UFO appeared in the sky last night.



一、词类：冠词

➤ 一般应加冠词的情况

□ 对前面已提到过的东西、心目中特指的东西、带有后置修饰语(短语或从句)的特指的东西前一般应使用**定冠词**

- ✓ **The** control of system is an interdisciplinary subject.
- ✓ In Chap.1 **the** analysis of diode was discussed in terms of three general methods.
- ✓ **The** design of control systems depends greatly on the application of complex-variable theory.
- ✓ **The** reader should be aware that the binary data code is converted to base 10 for human consumption.



一、词类：冠词

➤ 一般不加冠词的情况

□ 泛指的物质名词或不可数名词

- ✓ **Electricity** is widely used in **industry** and agriculture.
- ✓ **Electrical energy** can be changed by **electric motors** into **mechanical energy**.
- ✓ **Machines** are run by **electricity**.



一、词类：冠词

➤ 一般不加冠词的情况

□ 论文的标题、书籍名称等的冠词可以省略

- ✓ **Introduction** to computers.
- ✓ **Study** of phase-locked loops.
- ✓ **Quantum theory** of light.
- ✓ **Component Method** of Vector Addition.



一、词类：冠词

➤ 一般不加冠词的情况

□ 专有名词一般不加冠词

- ✓ Einstein
- ✓ Harbin Engineering University

注意：由三个或三个以上的普通单词构成的单位或国家名称前要加定冠词

- ✓ **The** Department of Computer Science
- ✓ **the** People' s Republic of China



一、词类：冠词

➤ 一般不加冠词的情况

□ 图题中一般可以省去冠词

- ✓ Figure 2-1 Generation of sine wave by vertical component of rotating vector.
- ✓ Figure 2-5 Effect of ammeter resistance on current in circuit.
- ✓ Fig. 1.1 Keyboard with attached printer and oscilloscope display.

英美人习惯在图示说明后用句号，不论它是否是一个句子！



一、词类：冠词

➤ 一般不加冠词的情况

□ 某些可数名词单数形式在泛指时可省去冠词

(特别是在between A and B, from A to B, the variation of A with B 等表达式中)

- ✓ Ohm first discovered the relationship between **current, voltage, and resistance**.
- ✓ A transistor consists of three parts: **emitter, base, and collector**.



一、词类：冠词

➤ 一般不加冠词的情况

□ 表示独一无二的人之前不用冠词

- ✓ The unit of power is a joule per second, which is called a watt, in honor of James Watt, **developer** of the steam engine.



一、词类：冠词

➤ 一般不加冠词的情况

□ 在人名的所有格之前不用冠词

✓ This equation is known as **Ohm's law**.

!!!人名直接修饰普通名词时，一般在它之前要用定冠词

✓ This equation can also be obtained from **the Karnaugh map** shown in Fig.1-3.

✓ **The Chebyshev window** is more difficult to implement than **Hanning's window**.



一、词类：冠词

➤ 一般不加冠词的情况

□ 方程、表达式、公式、图表、章节、页码等后

- ✓ 方程 (2-1) Equation (2-1)
- ✓ 第三章 Chapter 3
- ✓ 5.1节 Section 5.1
- ✓ 表2-2 Table 2-2
- ✓ 图3.2 Fig. 3.2
- ✓ 第5页 Page 5



一、词类：冠词

➤ 特殊情况

□ 在表示某个参数的单位的词前往往用**定冠词**

- ✓ The unit of potential difference is **the** volt.
- ✓ The unit of capacitance is **the** farad.



一、词类：冠词

➤ 特殊情况

□ 几个名词并列时可以共用第一个名词前的冠词

- ✓ This book is designed for managers who wish to learn about **the** technology, applications, and scope of CAD/CAM.
- ✓ Microwave engineering is the branch of electrical engineering that deals with **the** transmission, control, detection, and generation of radio waves whose wavelength is short compared to the physical dimensions of the system.



一、词类：冠词

➤ 特殊情况

□ 当表示“比较一下”、“计算一下”、“了解一下”、“考察一下”、“作一描述”等等时，在抽象名词前一般使用**不定冠词**

- ✓ **A brief qualitative discussion** of some basic concepts is presented in this paper.
- ✓ **A quantitative analysis** of this circuit is rather involved.
- ✓ **A general knowledge** of the characteristics of electrical transmission is essential if the reader is to gain **an understanding** of data communications.
- ✓ There is **a growing awareness** that this technique is of value.



一、词类：冠词

➤ 特殊位置

□ 定冠词的特殊位置 all/both + the + 复数名词

- ✓ **All the instruments** in our laboratory are home-made.
- ✓ **Both the devices** here are very good in quality.



一、词类：冠词

➤ 特殊位置

□ 不定冠词的特殊位置 too/so/as/how + 形容词 + a/an + 单数名词

- ✓ It is necessary to determine **how large a force** is required to move this body.
- ✓ This manipulator can lift **as heavy a weight as** 450 kilograms.



一、词类：冠词

➤ 挑错题

- UASMA 协议采用了独特的帧结构

UASMA protocol employs an unique frame structure.

- 最后，用这种方法设计了宽带阶梯阻抗变换器。

At last, broad stepped impedance transformer is designed by this method.

- 该方法适用于任意形状的一维势垒。

The approach can be applied to one-dimensional potential barrier with arbitrary profile.

- 我们提出了一种基于牛顿迭代法的数值方法。

We propose a kind of numerical method based on the Newton's iterative method.



一、词类：数词

➤ 分数表示法

□ 一般方式：分子(基数词)/分母(序数词复数形式，分子不大于1时用单数)

✓ three fifths/seven tenths/ one half



一、词类：数词

➤ 分数表示法

□ 科技界经常使用的两种分数表示法(“千分之…”、“万分之…”)

- ✓ 3 parts per thousand
- ✓ a third part in a thousand



一、词类：数词

➤ 在句子中作前置修饰语

□ 倍数/分数 + the/that/what + ...

- ✓ This voltage is **80 times the signal** applied to the amplifier.
- ✓ Its speed is **three tenths that** of light.
- ✓ The voltage across this resistor is **three fifths what** it was.



一、词类：数词

➤ 表示倍数增长

□ n times+比较级=n times as +原级+as

- ✓ This wire is **six times longer** than that one.
- ✓ This value is nearly **4.5 times greater** than the ideal one.



一、词类

➤ 课后题

- 其误差(error)为千亿分之六。
- 这台计算机所存储的信息比那台多3倍。
- 不久的将来对这种设备的需求量(demand) 为现在的20倍。
- 这个元件(component)上的电压为零点几伏特(volt).
- 现在其内部的压力被减少了15倍。



一、词类：介词

【1】 of

□ “of+某些抽象名词”等效于这些名词相应的形容词，但语气更强。

- ✓ Engineers may find the book **of value** as a reference on basic problems.
- ✓ What is described in this section is **of great importance**.



一、词类：介词

【1】 of

□ 可表示“在……之中”，既可用作最高级的比较范围，也可用在一般的句子中。

- ✓ Of all the computers in this laboratory, this one works best.
- ✓ Of all the four parameters, three can be disposed of rather quickly.



一、词类：介词

【1】 of

□ 可表示其前后两者处于同位关系

- ✓ The lighter machine part has a mass of 7 kg.
- ✓ This device can supply 4 mA of output drive current.
- ✓ The topic of trouble-shooting will be discussed in Chapter 9.



一、词类：介词

【1】 of

□ 其后面的名词是其前面的名词的逻辑主语

- ✓ Fig.2 shows **the variation of V** with I.
- ✓ Ellipses are used to describe **the motions of the planets** around the sun.



一、词类：介词

【1】 of

□ 其后面的名词是其前面的名词的逻辑宾语

- ✓ The resolution of a force into x- and y- components is possible.
- ✓ Exposure of the body to potentially toxic substances should be avoided.



一、词类：介词

【2】 with

□ “with+某些抽象名词” 等效于这些名词所对应的副词，但语气更强。

- ✓ These experiments should be done **with care**.
- ✓ This parameter can be measured **with accuracy**.



一、词类：介词

【2】 with

□ With与vary, change, increase, decrease等动词连用时可表示“随着……”之意。

- ✓ The conductivity of a semiconductor **varies with temperature**.
- ✓ The current **decreases with** the increase in resistance.



一、词类：介词

【2】 with

□ 可构成一种“with结构”，其应用特别广泛，主要作状语和后置定语

✓ **With friction present**, a part of power has been lost as heat.



一、词类：介词

【2】 with

□ 将with用在句首可表示“对于，有了”等意思

- ✓ **With the alternating current**, things are different.
- ✓ **With radar**, we can see distant objects.



一、词类：介词

【3】 by

□ by可表示增加、减少、相差的数值

✓ In this case v and i differ in phase **by 90°** .



一、词类：介词

【3】 by

□ by可表示“根据，按照”，主要用在推导之中

✓ By Eq.(3), we can obtain the following expression.



一、词类：介词

【3】 by

□ “by+动名词”一般可表示“通过……”之意

- ✓ **By an examination** of the performance of the device, we can understand its features.
- ✓ **By analyzing this model**, one can learn about the structure of an atom.



一、词类：介词

【3】 by

□ 表示方法的method, technique, approach, scheme等前通常用by, 意为“用…方法”

✓ We can solve that differential equation **by this method.**



一、词类：介词

【3】 by

□ 表示尺寸“长、宽、高”之间的相乘

✓ This device measures 12 by 18 by 6 inches.



一、词类：介词

【4】 for

□ for 可表示时间或距离的长短

- ✓ The output may stay high **for a long time**.
- ✓ They have been working **for several years** on such a computer.



一、词类：介词

【4】 for

□ for 可表示“对于，当……时候，如果…… 的话”

- ✓ For $x > 1$, this equation does not hold.
- ✓ This book is too difficult for a beginner.



一、词类：介词

【4】 for

□ for 与动词solve连用表示方程所要求解的对象

✓ It is necessary for us to solve this equation **for x**.



一、词类：介词

【4】 for

□ 在method, technique, equation, algorithm, condition, requirement等词后多用for

- ✓ There are **several methods for** antenna design.
- ✓ This paper presents **an algorithm for** describing the solution of some engineering problems in the graph theory.



一、词类：介词

【5】 on/upon

- 在on和upon之后跟有动名词或表示动作的名词时，一般表示“一……就”和“在……之后”之意
 - ✓ **On simplifying**, the result becomes as follows.
 - ✓ **Upon rearranging the above equations**, we get to the following set of equations.
 - ✓ **On the second half cycle**, Q1 is off while Q2 is on.



一、词类：介词

【6】 in

□ in后跟表示单位的名词复数时, 意为“用”

✓ Here t is measured **in seconds**.



一、词类：介词

【6】 in

□ in后跟表示方向的词时，意为“朝”

✓ Radio waves travel **in all directions**.



一、词类：介词

【6】 in

□ in可表示“方面”

- ✓ This computer is good **in quality**.
- ✓ The output pulse is **identical in form and width** to that of the input.



一、词类：介词

【6】 in

□ in后跟动名词或表示动作的名词时，意为“在……时候”、“在……过程中”

- ✓ **In our discussion of differential equations**, we shall restrict our attention to equations of the first degree.



一、词类：介词

【6】 in

□ 在名词 reduction, decrease, increase, change, drop, rise, fall 等后多用in

- ✓ We can measure the slight **change in** pressure.
- ✓ The inclusion of R causes a **decrease in** amplification.



一、词类：介词

【7】 over

□ 表示“通过、越过”

✓ It is necessary to protect data that are transferred **over** the network.



一、词类：介词

【7】 over

□ 表示“与…相比”

✓ The scheme has a few advantages **over** that one.



一、词类：介词

【7】 over

□ 表示“在…范围内”

✓ This voltage is fairly stable **over** a wide frequency range.



一、词类：介词

【7】 over

□ 表示“超过(=more than)”

- ✓ The wavelength of this musical note is 7.8 ft, **over** three times longer than the wavelength of the same note in air (2.5 ft).



一、词类：介词

【7】 over

□ 表示“遍及”

✓ The charge is distributed **over** the surface of the conductor.



一、词类：介词

➤ 练习题

- 本文提出了雷达目标的一种新的识别方法。
- 目标的运动状态对EKF跟踪精度的影响是非常大的。
- 在10月8日早上又发射了一颗通信卫星。
- 电压是用伏特度量的。
- 他们将赴北京参加移动通信国际会议。



一、词类：介词

➤ 练习题

- 本文提出了雷达目标的一种新的识别方法。

This paper presents a new kind of recognition method of radar target.

- 目标的运动状态对EKF跟踪精度的影响是非常大的。

The influence of the moving state of the target is very strong for the tracking accuracy of the EKF.

- 在10月8日早上又发射了一颗通信卫星。

Another comsat has been launched in the morning of the 8th of October.

- 电压是用伏特度量的。

Voltage is measured with volt.

- 他们将赴北京参加移动通信国际会议。

They will leave to Beijing to attend an international conference of mobile communication.



一、词类：动词

➤ 特殊连系动词的使用

□ 指由少数实义动词后跟形容词变成的连系动词，常见的有 get, turn, go, stay, appear, look, prove 等

- ✓ This graph **looks** puzzling.
- ✓ Its result **proves** correct.
- ✓ In this case, the output **stays** high.



一、词类：动词

➤ 半助动词的使用

□ 半助动词(remain, seem, appear, happen)与动词不定式合成谓语

- ✓ This problem **remains to be solved**.
- ✓ These experiments **appear to indicate** that there are only two kinds of electric charges in the universe.



一、词类：动词

➤ 代动词(do, does)的使用

□ 科技写作中，代动词主要出现在比较状语从句和方式状语从句中

- ✓ Copper conducts electric current better than aluminum **does**.
- ✓ These radio waves behave as light waves **do**.
- ✓ As **do** most operating systems, the UNIX operating system consists of two separate parts: the kernel and the systems program.



一、词类：动词

考察题

- This kind of magnets [] widely used in electric bells.
- There [] a large number of short CPU bursts.
- This is particularly true when more than one transistor [] used in a circuit.
- Each man and woman [] asked to complete a form.
- In this case, large amounts of code [] needed to handle infrequently occurring cases.
- The signal plus noise passes through the receiving filter and [] sampled by the A/D converter.



一、词类：动词

➤ 考察题

- ❑ This kind of magnets **is** widely used in electric bells.
- ❑ There **is** a large number of short CPU bursts.
- ❑ This is particularly true when more than one transistor **is** used in a circuit.
- ❑ Each man and woman **was** asked to complete a form.
- ❑ In this case, large amounts of code **are** needed to handle infrequently occurring cases.
- ❑ The signal plus noise passes through the receiving filter and **is** sampled by the A/D converter.



一、词类：副词

➤ 几类副词作后置定语的情况

□ 地点副词 above, below, here, there, everywhere, anywhere, between, around, nearby, up, down作后置定语

✓ The table **below** lists resistivities of some substances.



一、词类：副词

➤ 几类副词作后置定语的情况

□ 时间副词now, then, today, ahead, afterward作后置定语

✓ The problem **now** is to determine the magnitude of the current.



一、词类：副词

➤ 几类副词作后置定语的情况

□ 数量状语+某些副词(away, apart, on, ago等)作后置定语

- ✓ The scientists **50 years ago** could not do that.
- ✓ The force between two charges of 1 coul each **a distance of 1m apart** is 9×10 N.



一、词类：副词

➤ 副词作状语时的位置

□ 有些副词可放在句首

✓ Usually some of these parameters are known.



一、词类：副词

➤ 副词作状语时的位置

□ 不及物动词与介词连用的情况下，副词往往放在介词与动词之间

- ✓ The device consists **mainly** of five parts.
- ✓ This leads **directly** to the circuit of Fig. 6.



一、词类：副词

➤ 副词作状语时的位置

□ 在“形容词+介词” (due to)的情况下副词往往插在其中

✓ This variation of ICQ with temperature is due **primarily** to variations in VBE.



一、词类：副词

➤ 副词作状语时的位置

□ 有情态动词时，修饰情态动词的副词放在其后；修饰动作的动词可放在过去分词前，也可放在过去分词后

- ✓ This parameter can **also** be obtained from the vi characteristic.
- ✓ The reverse voltage gain can **usually** be neglected.
- ✓ The noise voltage can be **greatly** attenuated.
- ✓ The ac and dc components can be treated **separately**.



一、词类：副词

➤ 副词作状语时的位置

□ 副词放在主动语态主动词前

- ✓ We **now** introduce the usual symbols used in electric-circuit diagrams.
- ✓ This figure **clearly** shows the test points.



一、词类：副词

➤ 副词作状语时的位置

□ 副词放在宾语之后的情况

- ✓ You must use these rules **correctly**.
- ✓ We can solve the equations **simultaneously**.



一、词类：副词

➤ 副词作状语时的位置

□ 修饰不定式的副词一般可放在to 之后，也可放在动词或短语后，有时还可放在to之前

- ✓ It is necessary to decrease propagation delay time **dramatically**.
- ✓ We discuss the inverter **primarily** to illustrate the important characteristics common to all families of gates.



一、词类：形容词

□ **必须后置**的形容词主要有 present(存在的), else(其它的), what(so)ever(任何的), involved(有关的), inclusive(首尾包括在内的)

- ✓ This charge interacts with other charges **present**.
- ✓ Everything **else** in this equation can be measured except C2.



一、词类：形容词

- 有些以“-able”或“-ible”结尾的形容词常放在被修饰的名词后以加强语气，如 available, obtainable, achievable, responsible, possible, usable, total等
 - ✓ Even in this case, here are two directions possible.
 - ✓ This measure is the key for the extremely low dc power achievable.



一、词类：形容词

□ 形容词只能放在由some, every, any, no与thing, body, one排列组合成的不定代词之后

- ✓ Now there is nothing **mysterious** about computers.
- ✓ This book contains something **new**.
- ✓ Everything **electronic** will be done digitally.



一、词类：形容词

□ 两个形容词作定语的情况

- ✓ This book is a help to circuit designers **both new and old**.
- ✓ There are many problems, **both technological and financial**, that remain to be solved.
- ✓ Neutron has no charge, **neither positive nor negative**.



一、词类：形容词

□ “副词或数量状语+某些形容词”常用作后置定语

- ✓ The efficiency of the amplifier would be 50 percent, the maximum **theoretically possible**.
- ✓ Fig.16-3 shows a situation **a bit more complex**.
- ✓ For any value of x there are positive and negative slopes, **numerically equal**.



一、词类：形容词

□ 单个形容词(多数为un~ed形式)作方式状语

- ✓ With the help of a computer, this machine can work **unattended**.
- ✓ Even if a student can follow every line of every example in this book, that doesn' t mean that he or she can solve problems **unaided**.



一、词类：形容词

□ 形容词短语作状语

- ✓ **Accurate in operation and high in speed**, computers can save man a lot of time and labor.
- ✓ **Dependent upon the system**, this delay can be 1s to 2 min long.
- ✓ I_5 is zero, **independent of the applied voltage**.



一、词类：形容词

➤ 练习题

- 在这种情况下，输入并不下降，输出也不下降。
- 导体的电阻不仅取决于制成导体的材料，而且取决于导体的尺寸和温度。
- 这个参数几乎不能测出来。
- 在这个实验室，这台仪器比其他任何一台都贵。



一、词类：形容词

➤ 练习题

- 在这种情况下，输入并不下降，输出也不下降。

In this case, the input does not fall; the output does not fall, too.

- 导体的电阻不仅取决于制成导体的材料，而且取决于导体的尺寸和温度。

The resistance of a conductor not only depends on the material with which the conductor is made, but also on the size and temperature of the conductor.

- 这个参数几乎不能测出来。

This parameter almost cannot be measured.

- 在这个实验室，这台仪器比其他任何一台都贵。

In this laboratory, this instrument is more expensive than any one.



一、词类：代词

□ 物主代词作定语时所表示的主谓关系和动宾关系

- ✓ Physics is the most quantitative of the sciences, and we must become accustomed to **its insistence** upon accurate measurements and precise relationships if we are to appreciate its results. (主谓关系)
- ✓ The questions of convergence are not simple, and **their study** forms an important chapter in modern analysis. (动宾关系)



一、词类：代词

□ 代词one的一个特殊用法，表示“有人，人们，大家”

- ✓ By the “most efficient” algorithm **one** normally means the fastest.
- ✓ Before **one** studies a system, it is necessary to define and discuss some important terms.



一、词类：代词

□ 用it, its, they, their等代词来代替后面主句中的人或物

- ✓ Before **it** can work, a computer must be told what to do .
- ✓ Because of **its** capacity to handle large volumes of data in a very short times, a computer may be the only means of resolving problems when time is limited.
- ✓ When **they** get hot, all metals melt.



一、词类：名词

□ 用不带冠词的单个名词作方式状语或方面状语

- ✓ This device can be **computer** controlled.
- ✓ The container is **water** resistant.



一、词类：名词

□ 名词短语用作同位语的情况

- ✓ When we use this multiplication method it is not necessary to figure out all possibilities, **a procedure which is often very lengthy, or even impossible from a practical point of view.**
- ✓ **An instrument for measuring electric resistance,** the ohmmeter is widely used in electrical engineering.



一、词类：名词

□ 名词与介词的搭配(名词 of 名词A介词名词B)

- ✓ This chapter deals with the **effect** of temperature **on** transistors.
- ✓ The **dependence** of y **upon** x is expressed by $y=f(x)$.
- ✓ The **resolution** of a force **into** x- and y- components is possible.



一、词类：名词

➤ 几种特殊的名词复数形式

□ 一些缩略词的复数形式

- ✓ This section deals with analog-to-digital converters (A/D' s).
- ✓ These systems include PCs running Microsoft Windows.
- ✓ These two emf' s are equal.



一、词类：名词

➤ 几种特殊的名词复数形式

□ 某个字母、参数及数字的复数形式

- ✓ The computer can interpret the same binary configuration of 0' s and 1' s as data or as an instruction.
- ✓ The difference in y' s is taken so that it is positive.



一、词类：名词

➤ 几种特殊的名词复数形式

□ 当数字小于1时，其修饰的名词却用复数形式

- ✓ The amplitude varies **0.44 units** above and below the zero axis.
- ✓ In this case both the resistor and the source absorb **0 watts**.



一、词类：名词

➤ 几种特殊的名词复数形式

□ 缩略词的复数形式应放在缩略点之前

- ✓ **Figs.** (1-2) and (1-3) show this process.
- ✓ **Eqs.** (2-5) and (2-6) are very useful.



一、词类：名词

➤ 几种特殊的名词复数形式

□ 一些不可数名词(time, work, energy等)在特定情况下也可以用复数形式

✓ The control signal can arrive at different **times** without affecting the state of the output.



一、词类：词汇搭配

➤ 某些名词前搭配特定的动词

- ✓ 提高质量
- ✓ 提高效率
- ✓ 提高能力
- ✓ 取得进展
- ✓ 取得胜利
- ✓ 取得成就
- ✓ 取得经验
- ✓ 取得效果



一、词类：词汇搭配

➤ 某些名词前搭配特定的动词

- | | |
|--------|----------------------|
| ✓ 提高质量 | Improve the quality |
| ✓ 提高效率 | Raise the efficiency |
| ✓ 提高能力 | Increase the ability |
| ✓ 取得进展 | Make progress |
| ✓ 取得胜利 | Win a victory |
| ✓ 取得成就 | Make achievements |
| ✓ 取得经验 | Gain experience |
| ✓ 取得效果 | Achieve results |



一、词类：词汇搭配

➤ 动词后跟特定的介词

- ✓ 把A扔向B
- ✓ 把A瞄准B
- ✓ 把A发向B
- ✓ 把A指向B
- ✓ 把A射向B



一、词类：词汇搭配

➤ 动词后跟特定的介词

- ✓ 把A扔向B Throw A at B
- ✓ 把A瞄准B Aim A at B
- ✓ 把A发向B Send A at B
- ✓ 把A指向B Point A at B
- ✓ 把A射向B Emit A at B



一、词类：词汇搭配

➤ 形容词后跟特定的介词

- ✓ Characteristic of
- ✓ Indicative of
- ✓ Aware of
- ✓ Familiar to
- ✓ Familiar with
- ✓ The same as
- ✓ Equivalent to
- ✓ Parallel to
- ✓ Similar to
- ✓ Proportional to
- ✓ Tangent to
- ✓ Vertical to



一、词类：词汇搭配

➤ 练习题

- 他们都不会解这类特殊的微分方程。
- 他们不知道这材料能否承受这么大的力。
- 共有M个多边形，其每个顶点数均为N。
- 铁的导电性能几乎与铝一样好。



一、词类：词汇搭配

➤ 练习题

- 他们都不会解这类特殊的微分方程。

All of them can not solve this type of special differential equation.

- 他们不知道这材料能否承受这么大的力。

They do not know if this material can stand a so large force or not.

- 共有M个多边形，其每个顶点数均为N。

There are M polygons altogether, whose vertex number is all N.

- 铁的导电性能几乎与铝一样好。

The iron is almost as good conductor as the aluminum.

一

词类

二

插入语、否定、时态、语态

三

动词非谓语形式

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从句



二、插入词

➤ 副词、介词短语作插入语时的位置

□ 类似于副词作状语时在句中的位置，在句首、句尾，也可插在句中，如however, for example

- ✓ **However**, the following factors must be taken into account.
- ✓ Digital information, **however**, consists of discrete numerical values.
- ✓ The ripple is very much reduced by the double filtering action, **however**.



二、插入词

➤ 具有主谓结构的插入语

□ 处于主句中的情况，一般处于主语或连系动词之后，由逗号分开。

- ✓ This book is, **we hope**, a concise introduction to communications systems.
- ✓ The Special Revision Units will, **it is hoped**, constitute a valuable aid in the task of consolidation.



二、插入词

➤ 具有主谓结构的插入语

□ 处于定语从句中的情况，一般跟在从句主语后，有时由逗号分开，**一般没有逗号分开。**

- ✓ Ohm' s law has a few forms which **it will be found** are very useful.
- ✓ In this case I_c varies little with UCE, which **we think** is very important.



二、插入词

➤ 具有主谓结构的插入语

□ 采用祈使句形式出现在句中，最常见的是 say, let us say等

- ✓ Well-grounded students can absorb Chapters 4 and 5 in **say** three weeks.
- ✓ The pump creates pressure of, **let us say**, forty pounds per square inch.
- ✓ We try to make x drop below **say** 5.



二、否定

➤ 否定

□ 一定要使用no, none, neither等表示全否定

- ✓ **None** of these problems can be solved at once.
- ✓ **No** book is perfect.
- ✓ **Neither** of the devices is good in quality.



二、否定

□ 使用every, both, all等与not连用来表示部分否定而不能表示全否定

✓ Students are not familiar with all these problems.



二、否定

- 否定的转移：主句的否定，其实际含义转移到了从句中
 - ✓ It **does not** appear that this value satisfies the equation.
 - ✓ It **did not** seem that such studies could have any practical use.



二、时态

➤ 时态

□ 在有“by+时间”的句中应该使用完成时态

- ✓ By the time students graduate, they **will have taken** up 30 courses in all.
- ✓ By 1980 the corporation **had produced** more than 1000 radars.



二、时态

□ 用现在完成进行时来强调“一直在进行某项工作”的含义

✓ These days he **has been conducting** an important test, but he has not finished it yet.



二、时态

□ 句中有具体的过去时间时只能由一般过去式，而不能用过过去完成时

✓ In the 1940' s, they **designed** the first generation of electronic computers.



二、语态

□ 没有被动语态的几种情况

- ✓ When will the international conference on mobile communication **take place** this year?
- ✓ This device **consists of** five parts.
- ✓ Computers **have found** wide applications in every field.



二、时态

□ 论文摘要中，表示“本文论述[介绍、讨论、提出]…”时应用一般现在时

- ✓ A new multiple description video coding system **is proposed** in this paper.
- ✓ This paper **presents** a new method.
- ✓ This paper **deals** with the features of signals.



二、时态

- 在科技文中表示“人们……”时一般应使用被动语态句或用one作主语的主动句
 - ✓ As early as the 1820' s **it had been realized** that this metal could be used in industry.
 - ✓ If **one** wishes to send out radio waves, it is necessary to generate high-frequency oscillations.



二、时态

□ “不及物动词+介词=及物动词”的被动语态形式

- ✓ Actually, this result **could have been arrived** at intuitively.
- ✓ In this case, the work done **is accounted for** by an increase in potential energy.



二、时态

□ “及物动词+名词+介词=及物动词”的被动语态形式

- ✓ No mention **has been made of this phenomenon** in the book.
- ✓ This point **must be paid full attention to**.



二、时态

□ 由“get, become, remain等+过去分词”构成的被动句

- ✓ If the flow is fast enough, the heat **gets carried away** by convection.
- ✓ The gate will **remain closed** by the low input until the clock pulse arrives.



二、时态

➤ 练习题

- 我们容易确定该物体的重量。
- 我们发现这个概念很难解释。
- 功等于力乘以距离。
- 所得结果与实验数值吻合。
- 这些窗户均承受不了这么大的力。



二、时态

➤ 练习题

- 我们容易确定该物体的重量。

We are easy to determine the weight of the body.

- 我们发现这个概念很难解释。

We find this concept very difficult to be explained.

- 功等于力乘以距离。

Work equals to force multiplying distance.

- 所得结果与实验数值吻合。

The results obtained fit the experimental values.

- 这些窗户均承受不了这么大的力。

All these windows cannot withstand a so large force.

一

词类

二

插入语、否定、时态、语态

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三、动词非谓语形式

➤ 动词不定式

□ 动词不定式作主语可使用it作形式主语

- ✓ **It takes** dozens of seconds for a computer to solve this problem.
- ✓ **It remains** now to determine this coefficient.
- ✓ **It is now possible to** convert sunlight into electricity.
- ✓ **It will not be necessary to** calculate the component to the magnetic field.



三、动词非谓语形式

➤ 动词不定式

□ 动词不定式作定语的几个句型

----- “介词+which+动词不定式” 的形式

- ✓ We have defined length and time units with **which to measure ISO.**
- ✓ We shall use such a field on **which to base our discussion of magnetic properties.**



三、动词非谓语形式

➤ 动词不定式

□ 动词不定式作定语的几个句型

----- the ability (tendency) of A to do B 的形式

- ✓ Energy is defined as the ability of a body to do work.
- ✓ The greater the tendency of an object to resist a change of velocity, the greater its inertia.



三、动词非谓语形式

➤ 动词不定式

□ 其它几个句型

- ✓ This computer is easy **to operate**.
- ✓ We find **it** very easy **to solve this problem**.
- ✓ We find **this quantity** difficult **to measure**.
- ✓ We have to find **how large to make x** so as for this inequality to hold.
- ✓ **For a transistor to function normally**, it is necessary to apply proper voltages to its electrodes.



三、动词非谓语形式

➤ 练习题

- 强调指出了光强随圆柱体直径变换的正弦规律。
- 不仅温度和光影响导电率，而且给半导体加杂质也会使导电率变化很大。
- 人们经常发射各种卫星来获得有关太空的信息。
- 我们的半导体工业是在20世纪50年代形成的。



三、动词非谓语形式

➤ 练习题

- 强调指出了光强随圆柱体直径变换的正弦规律。

The sine law of the variance of the light intensity brought due to the variance of the cylinder diameter has been pointed emphatically.

- 不仅温度和光影响导电率，而且给半导体加杂质也会使导电率变化很大。

Not only temperature and light affect the conductivity, but the addition of impurities to semiconductors also make it to change greatly.

- 人们经常发射各种卫星来获得有关太空的信息。

The various satellites are frequently launched to obtain information about the space.

- 我们的半导体工业是在20世纪50年代形成的。

Our semiconductor industry comes into being in the end of 1950s.



三、动词非谓语形式

➤ 分词

□ 作定语

- ✓ These **moving** electrons form the current.
- ✓ Distance is equal to **speed multiplied by time**.



三、动词非谓语形式

➤ 分词

□ 作状语: 写作时侧重于在句首和句尾的情况, 这是典型的书面语言形式

- ✓ **Having obtained the initial conditions**, we go on to solve the network differential equations.
- ✓ **Known as a “man-amplifier”**, a machine under development consists of a framework that the operator wears.
- ✓ Four node equations may be written **based on an energy balance**.
- ✓ Equation (5) may be solved **using the Laplace transformation**.



三、动词非谓语形式

➤ 分词

□ 分词独立结构: 写作重点放在处于句尾时作附加说明用, 这同样是典型的书面语言形式

- ✓ The sign of the integral depends on the direction of the path taken, a counter-clockwise direction being taken as positive.
- ✓ There are several basic laws governing these interactions, all of them discovered early in the nineteenth century.



三、动词非谓语形式

➤ 分词

□ with结构: 作状语, 作定语

- ✓ Both practical design techniques and theoretical problems are covered **with emphasis on general concepts**.
- ✓ All present states are stable **with no inputs present**.
- ✓ The device **with buttons on it** is a keyboard.
- ✓ This is an inequality **with zero on the right**.



三、动词非谓语形式

➤ 动名词

□ “by+动名词” 意为 “通过……”

✓ By analyzing the performance of the device, one can appreciate it better.



三、动词非谓语形式

➤ 动名词

□ “on(或upon) +动名词” 意为 “一……就”, “在……之后”

✓ Upon substituting the actual magnitudes, v turned out to be the velocity.



三、动词非谓语形式

➤ 动名词

□ “in+动名词” 意为 “在……时候、”, “在……过程中”

✓ **In using this equation,** attention must be paid to the sign.



三、动词非谓语形式

➤ 练习题

- 已知电阻和电流，就能计算出电压来。
- 这台仪器的价格很昂贵。
- 机器人是一种特殊的电子设备。
- 就在我们闭合电路的那一瞬间电流开始流动。



三、动词非谓语形式

➤ 练习题

- 已知电阻和电流，就能计算出电压来。

Giving resistance and current, voltage can be determined.

- 这台仪器的价格很昂贵。

The price for this instrument is expensive.

- 机器人是一种特殊的电子设备。

Robot is a kind of special electronic devices.

- 就在我们闭合电路的那一瞬间电流开始流动。

The current starts flowing on very moment we close the circuit.

一

词类

二

插入语、否定、时态、语态

三

动词非谓语形式

四

从句



四、从句

➤ 状语从句

□ 表示原因的连词: because/since/as/for

- ✓ Since k and m are both constants, the ratio k/m is constant.
- ✓ As air has weight, it exerts force on any object immersed in it.
- ✓ In previous chapters we did not use the trigonometric, inverse trigonometric, exponential, or logarithmic functions, for the derivative of each of these is a special form.



四、从句

➤ 状语从句

□ 表示“当……时候”的连词: when/while/as

- ✓ When a rocket is launched from the earth' s surface, the thrust of its engines must exceed its weight for it to rise from the ground.
- ✓ It is possible for a body to remain in one place while it is rotating.
- ✓ As radio wave travel along the surface of the earth, part of its energy will be lost.



四、从句

➤ 状语从句

□ 表示“虽然”的连词: although/though/as/while

- ✓ The foregoing provides a basis for this theorem, **although it cannot be considered as a proof.**
- ✓ **Important though this law is**, it is seldom used in practice.
- ✓ **Small as electrons are**, they play an important role in the formation of electric current.
- ✓ **While x can only lie between - 1 and +1**, there are an infinite number of values of y for every value of x.



四、从句

➤ 状语从句

□ 一些特殊的状语从句连接词

- ✓ the moment/instant... = as soon as...
- ✓ at the very moment when...
- ✓ each/every/any time... = whenever...
- ✓ the first/next/last time...
- ✓ the day/night/month/year/time... instantly/directly/immediately... = as soon as...



四、从句

➤ 同位语从句

□ 两个常用的固定句型

- ✓ 毫无疑问—**there is no doubt (question) that**
- ✓ 有证据表明—**there is evidence that...**



四、从句

➤ 同位语从句

□ 动宾译法的句型

- ✓ There is a growing awareness **that these techniques are also of value in some other areas.**



四、从句

➤ 同位语从句

□ 由名词从句转变成的同位语从句

- ✓ The users have no guarantee **how long this kind of device will be operating.**



四、从句

➤ 名词从句

□ 采用形式主语it的一些句型

- ✓ **It is interesting** that every function can be approximated by simple functions.
- ✓ **It remains** now to be seen when this equation holds.
- ✓ **It does not matter** in which order two numbers are added.



四、从句

➤ 名词从句

□ 常用句型

- ✓ It is known that ...
- ✓ It is said that ...
- ✓ It is reported that ...
- ✓ It is believed that ...
- ✓ It can be seen that ...
- ✓ It has been shown that ...
- ✓ It has been found that ...
- ✓ It must be pointed out that ...
- ✓ It should be noted that ...
- ✓ It must be emphasized that ...
- ✓ It follows that ...
- ✓ It holds that ...
- ✓ It appears that ...
- ✓ It happens that ...
- ✓ It turns out that ...
- ✓ It does not matter ...



四、从句

➤ 名词从句

□ what从句的句型

- ✓ We must understand **what is meant by the slope of a function.**
- ✓ It must be clear from **what we have already learnt that man is much more than a machine.**
- ✓ Sending a signal from one place to another is **what is called** transmission.
- ✓ In this case, the magnetic induction is 5500 times **what it was.**



四、从句

➤ 名词从句

□ 常用句型

- ✓ What is desired is ...
- ✓ What has been described above is ...
- ✓ What has been discussed above is ...
- ✓ What should be pointed out is ...
- ✓ What must be emphasized is ...
- ✓ What must be noted is ...
- ✓ What is important is ...



四、从句

➤ 定语从句

□ 关系代词在从句中作主语、宾语和定语以及关系副词在从句中作状语的情况

- ✓ There are some quantities **that** have direction as well as magnitude.
- ✓ The meter **that** we use to measure pressure is known as a pressure gauge.
- ✓ Two like poles of two magnets repelling each other is the theory on **which** electric motors work.
- ✓ A target is the object **whose** position is to be determined.
- ✓ It is necessary to determine the time **when** the y-component has decreased to zero.



四、从句

➤ 定语从句

□ 关系代词在从句中作介词宾语而“介词+which”在从句中作状语的句型

- ✓ Power is the rate **at which** work is done.
- ✓ The two elements **of which** water consists are the gases oxygen and hydrogen.
- ✓ Any change **in which** no new substance is formed is a physical change.



四、从句

➤ 定语从句

□ 先行词为不定代词 (anything, all, little) 或被序数词、形容词最高级或形容词 (only, no, very等) 修饰时, 不能用which而只能用that

- ✓ All that one should do is to adjust the resistance.
- ✓ Computers are the most efficient assistants that man has ever had.
- ✓ The only measure that we can take in this case is to connect a capacitor across R.



四、从句

➤ 定语从句

□ 在科技文中关系词可省去的三种场合

----关系代词在从句中作及物动词的宾语时

- ✓ Each CPU has a very elementary set of functions **it knows how to perform.**



四、从句

➤ 定语从句

□ 在科技文中关系词可省去的三种场合

----在way, distance, direction, reason, time, number of times, amount等后可以省去关系副词或“介词+which”，这时也可用关系副词that来引导从句

✓ Work is the product of the force and the distance **a body moves**.



四、从句

➤ 定语从句

□ 在科技文中关系词可省去的三种场合

----当关系代词which在从句中作单个介词的介词宾语并且此介词宾语在从句中作状语时可以省去，其条件是一定要把介词置于从句末尾

- ✓ Like the sun, water is one of the necessities **plants cannot go without.**



四、从句

➤ 定语从句

□ which引导修饰整个主句的非限制性定语从句的三种常用情况

----which在从句中作主语

- ✓ The input may be connected to signal sources that have neither terminal grounded, **which often proves to be convenient.**



四、从句

➤ 定语从句

□ which引导修饰整个主句的非限制性定语从句的三种常用情况

----which在从句中作介词宾语的定语

- ✓ I1 is much greater than I2, **in which** case I2 can be neglected.
- ✓ These will be introduced in Section 2-8, **by which time** the proper method of integration will be developed.



四、从句

➤ 定语从句

□ which引导修饰整个主句的非限制性定语从句的三种常用情况

----which在从句中作介词宾语

- ✓ In the analysis of the various types of electronic circuits those using solid-state devices are presented first, **after which a shorter explanation of circuits using electron tubes is presented.**



四、从句

➤ 定语从句

□ as引导的定语从句

- ✓ **As we mentioned earlier**, matrices can be used to solve systems of equations.
- ✓ Such meters **as we use to measure current** are called ammeters.
- ✓ The basic organization of such a system is **as shown in Fig.6**.



四、从句

➤ 练习题

- 这些特点使电子对抗系统难以截获、分析和干扰这种信号。
- 这些现象的存在及对它们的控制能力使得制造那些器件成为了可能。
- 这种方法降低了对采样网络硬件的要求。
- 异常程度越大，残留的失配就越大，曲线就上扬。



四、从句

➤ 练习题

- 这些特点使电子对抗系统难以截获、分析和干扰这种信号。

These features make electronic counter-measure systems difficult to intercept and analyze this kind of signal and jam.

- 这些现象的存在及对它们的控制能力使得制造那些器件成为了可能。

The existence and ability for controlling these phenomena makes those devices possible.

- 这种方法降低了对采样网络硬件的要求。

This kind of method decreases the requirement to the hardware of a sample network.

- 异常程度越大，残留的失配就越大，曲线就上扬。

Larger is abnormal extent, larger is the residual mismatch and the curve goes up.



Q & A