

Morning Reading 晨读

Grade 11 · AS · Week 18

Read each word aloud, then copy the English word three times. 朗读每个单词，然后把英语单词抄写三遍。

Reading 阅读

Read the passage aloud twice. 把短文朗读两遍。

How do you know your program is correct? You hunt for errors, and they come in kinds. A **syntax error** breaks the language rules, and the translator refuses to run at all. A **run-time error** appears while the program runs, like dividing by zero. The most dangerous is the **logic error**: the program runs happily and gives the wrong answer. To catch them, testers do a **dry run** on paper, use **white-box testing** to exercise every path inside the code, and **black-box testing** to check inputs against expected outputs without looking inside. Before release come **alpha testing** in the company and **beta testing** with real users.

Chemists identify unknown substances with the same detective spirit. **Infrared spectroscopy** shines light through a sample: each bond absorbs its own frequencies, leaving a fingerprint. **Mass spectrometry** weighs the fragments of a molecule.

One last economic idea for the term: under a **floating exchange rate**, a currency's **appreciation** makes imports cheaper but exports harder to sell. The whole year connects: measure, model, test, and question everything.

Talk about it 说一说:

- Find the logic error: a program to average two numbers computes $a + b / 2$.
- Which subject taught you the most surprising idea this term? Explain it in two sentences.

Physics

Topics 2-11 · Kinematics, Dynamics, Forces, density and pressure, Work, energy and power, Deformation of solids, Waves, Superposition, Electricity, D.C. circuits, Particle physics

☞ isotopes 同位素
/ˈaɪsəˌtəʊps/

☞ graphical methods 图像法
/ˈɡræfɪkl ˈmeθədz/

☞ non-uniform 非均匀
/nɒn ˈjuːnɪfɔːm/

△ closed vector triangle 矢量三角形
/kloʊzd ˈvektə ˈtraɪəŋɡl/

⚡ electrical 电能
/ɪˈlektɪkl/

✂ bungee jumper 蹦极者
/ˈbʌndʒiː ˈdʒʌmpə/

↔ rubber band 橡皮筋
/ˈrʌbə bænd/

↺ elastic hysteresis 弹性滞后
/ɪˈlæstɪk ˌhɪstəˈrɪːsɪs/

🌊 Wave motion 波动
/weɪv ˈməʊʃn/

☸ γ-rays γ射线
/ˈɡæmə reɪz/

≡ principle of superposition 叠加
/ˈprɪnsɪpl ɒv ˌsuːpəˈzɪʃn/

⚡ semiconductor diode 二极管
/ˌsemɪkənˈdʌktə ˈdaɪəd/

⌚ closed loop 回路
/kloʊzd luːp/

 balance length 平衡长度			
<i>/ˈbæləns leŋθ/</i>			
 driver cell 驱动电池			
<i>/ˈdraɪvə sel/</i>			
 fundamental particles 基本粒子			
<i>/ˌfʌndəˈmentl̩ ˈpɑːtɪklz/</i>			
 uniform gravitational field 匀强重力场			
<i>/ˈjuːnɪfɔːm ˌɡrævɪˈteɪʃənl fiːld/</i>			
 negligible 可忽略的			
<i>/ˈneglɪdʒəbl̩/</i>			
 parabola 抛物线			
<i>/pəˈræbələ/</i>			
 driving force 驱动力			
<i>/ˈdraɪvɪŋ fɔːs/</i>			

Chemistry

Topics 20–22 · Polymerisation, Organic synthesis, Analytical techniques

 monomer 单体			
<i>/ˈmɒnəma/</i>			
 repeat unit 重复单元			
<i>/rɪˈpiːt ˈjuːnɪt/</i>			
 poly(ethene) 聚乙烯			
<i>/ˈpɒli/</i>			
 poly(chloroethene) 聚氯乙烯			
<i>/ˈpɒli/</i>			
 non-biodegradable 不可生物降解			
<i>/nɒn ˌbaɪəʊdɪˈɡreɪdəbl̩/</i>			
 synthetic route 合成路线			
<i>/sɪnˈθetɪk ruːt/</i>			
 reagent 试剂			
<i>/rɪˈeɪdʒənt/</i>			

 by-product 副产物			
<i>/baɪ ˈprɒdəkt/</i>			
 infrared spectroscopy 红外光谱			
<i>/ˌɪnfraˈred spekˈtrɒskəpi/</i>			
 absorption 吸收			
<i>/əbˈsɔːpʃn/</i>			
 wavenumber 波数			
<i>/ˈweɪvnʌmbə/</i>			
 mass spectrometry 质谱			
<i>/məs spekˈtrɒmətri/</i>			
 mass-to-charge ratio 质荷比			
<i>/məs tə tʃɑːdʒ ˈreɪʃiəʊ/</i>			
 isotopic abundance 同位素丰度			
<i>/aɪsəˈtɒpɪk əˈbʌndəns/</i>			

 molecular ion 分子离子			
<i>/məˈlekjələ ˈaɪɒn/</i>			
 molecular ion peak 分子离子峰			
<i>/məˈlekjələ ˈaɪɒn piːk/</i>			
 fragmentation 碎裂			
<i>/frægməntˈeɪʃn/</i>			
 fragment 碎片			
<i>/ˈfrægmənt/</i>			

Biology

Topics 10–11 · Infectious diseases, Immunity

 resistance 耐药性			
<i>/rɪˈzɪstəns/</i>			
 phagocyte 吞噬细胞			
<i>/ˈfæɡəsaɪt/</i>			
 macrophage 巨噬细胞			
<i>/ˈmækroʊfaɪdʒ/</i>			

 phagocytosis 吞噬作用			
/ˈfæɡəsiˈtaʊsɪs/			
 self antigen 自身抗原			
/selfˈæntɪdʒən/			
 non-self antigen 非自身抗原			
/nɒn selfˈæntɪdʒən/			
 immune response 免疫反应			
/ɪˈmjuːn rɪˈspons/			
 T-helper cell 辅助性 T 细胞			
/tiːˈhelpə sel/			
 plasma cell 浆细胞			
/ˈplæzmə sel/			
 memory cell 记忆细胞			
/ˈmeməri sel/			
 T-killer cell 杀伤性 T 细胞			
/tiːˈkɪlə sel/			
 antigen-binding site 抗原结合位点			
/ˈæntɪdʒənˈbaɪndɪŋ saɪt/			
 variable region 可变区			
/ˈveəriəbl̩ˈrɪːdʒən/			
 monoclonal antibody 单克隆抗体			
/ˈmɒnəʊklɒnl̩ˈæntɪbɒdi/			
 hybridoma 杂交瘤			
/ˈhaɪbrɪˈdɒmə/			
 diagnosis 诊断			
/ˌdaɪəɡˈnəʊsɪs/			
 active immunity 主动免疫			
/ˈæktɪv ɪˈmjuːnɪti/			

 passive immunity 被动免疫			
/ˈpæsɪv ɪˈmjuːnɪti/			
 natural immunity 天然免疫			
/ˈnætʃərəl ɪˈmjuːnɪti/			
 artificial immunity 人工免疫			
/ˌɑːtɪˈfɪʃl ɪˈmjuːnɪti/			
 vaccination 疫苗接种			
/ˌvæksɪˈneɪʃn/			
 herd immunity 群体免疫			
/hɜːd ɪˈmjuːnɪti/			
Mathematics			
<i>Topics 1–5 · Pure Mathematics 1, Probability & Statistics 1</i>			
 continuity correction 连续性校正			
/kɒntɪˈnjuːɪti kəˈrekʃn/			
 standardisation 标准化			
/ˌstændadaɪˈzeɪʃn/			
 coefficients 系数			
/ˌkəʊɪˈfɪʃənts/			
 point of inflexion 拐点			
/pɔɪnt ɒv ɪnˈflekʃn/			
 improper integral 广义积分			
/ɪmˈprɒpə ˈɪntɪgrəl/			
 back-to-back 背靠背			
/bæk tə bæk/			
 measure of central tendency 集中趋势			
/ˈmeʒə ɒv ˈsentərəl ˈtendənsɪ/			
 Coding 编码			
/ˈkəʊdɪŋ/			

 **assumed mean** 假定平均数
/ə'sju:md mi:n/

Further Mathematics

Topic 4 · Further Probability & Statistics

 **sign test** 符号检验
/saɪn test/

 **Wilcoxon signed-rank test** 威尔科克森符号秩检验
/'wɪlkɒksn saɪnd ræŋk test/

 **Wilcoxon rank-sum test** 威尔科克森秩和检验
/'wɪlkɒksn ræŋk sʌm test/

 **probability generating function** 概率母函数
/'prɒbə'bɪləti 'dʒenəreɪtɪŋ 'fʌŋkʃn/

Computer Science

Topics 1–12 · Information representation, Communication, Processor Fundamentals, System Software, Security, privacy and data integrity, Ethics and Ownership, Databases, Algorithm Design and Problem-solving, Data Types and Structures, Programming, Software Development

 **hardware interrupt** 硬件中断
/'ha:dweə 'ɪntərəpt/

 **software interrupt** 软件中断
/'sɒftweə 'ɪntərəpt/

 **fragmented** 碎片化
/'fræg'mentɪd/

 **incremental backups** 增量备份
/'ɪŋkri'mentl 'bækʌps/

 **object code** 目标代码
/'ɒbdʒekt kaəd/

 **context-sensitive prompts** 上下文相关提示
/'kɒntekst 'sensɪtɪv prɒmpts/

 **dynamic syntax checks** 动态语法检查
/'daɪ'næmɪk 'sɪntæks tʃeks/

 **prettyprint** 代码美化
/'preɪtɪprɪnt/

 **single stepping** 单步执行
/'sɪŋɡl 'steɪpɪŋ/

 **report window** 报告窗口
/'rɪ'pɔ:t 'wɪndəʊ/

 **parity block check** 奇偶块校验
/'pærɪti blɒk tʃek/

 **code of conduct** 行为准则
/'kəʊd ɒv 'kɒndʌkt/

 **partial dependency** 部分依赖
/'pɑ:ʃl dɪ'pendənsi/

 **sub-problem** 子问题
/'sʌb 'prɒbləm/

 **modules** 模块
/'mɒdjʊ:lz/

 **identifier** 标识符
/'aɪ'dentɪfaɪə/

 **initialise** 初始化
/'ɪnɪʃəlaɪz/

 **separator** 分隔符
/'sepəreɪtə/

 **IDE** 集成开发环境
/'aɪ di 'i:/

 **breakpoint** 断点
/'breɪkpoɪnt/

 hierarchical decomposition 分解			
/haɪə're:kɪkl ,di:kɒmpə'zɪʃn/			
 packet switching 分组交换			
/ˈpækɪt 'swɪtʃɪŋ/			
 nodes 节点			
/nəʊdz/			
 modem 调制解调器			
/ˈmɒdəm/			
 ALU 算术逻辑单元			
/,eɪ el 'juː/			
 time slice 时间片			
/taɪm sleɪs/			
 interrupt handler 中断处理程序			
/ˈɪntərəpt 'hændlə/			
 properties 属性			
/ˈprɒpətɪz/			

Economics

Topic 6 · International economic issues

 trade in goods 货物贸易			
/treɪd ɪn ɡoʊdz/			
 trade in services 服务贸易			
/treɪd ɪn 'sɜːvɪsɪz/			
 primary income 初次收入			
/ˈpraɪməri ɪŋkəm/			
 secondary income 二次收入			
/ˈsekəndəri ɪŋkəm/			
 current account deficit 经常账户赤字			
/ˈkʌrənt əˈkaʊnt 'defɪsɪt/			

 current account surplus 经常账户盈余			
/ˈkʌrənt əˈkaʊnt 'sɜːpləs/			
 floating exchange rate 浮动汇率			
/ˈflaʊtɪŋ eks'tʃeɪndʒ reɪt/			
 fixed exchange rate 固定汇率			
/fɪkst eks'tʃeɪndʒ reɪt/			
 managed exchange rate 管理浮动汇率			
/ˈmænɪdʒd eks'tʃeɪndʒ reɪt/			
 appreciation 升值			
/əˌpriːʃi'eɪʃn/			
 depreciation 贬值			
/dɪˌpriːʃi'eɪʃn/			
 expenditure-reducing 支出减少			
/ek'spendɪtʃə rɪ'djuːsɪŋ/			
 expenditure-switching 支出转换			
/ek'spendɪtʃə 'swɪtʃɪŋ/			
 competitiveness 竞争力			
/kəmˈpetɪtɪvnes/			