
Morning Reading 晨读

Grade 11 · AS · Week 11

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 big is an economy? Add up the value of everything produced inside the country in a year and you get the **gross domestic product**. But be careful with rising prices: **nominal** GDP can grow while the country actually makes no more than before. **Real** GDP removes the effect of inflation, and dividing by the population gives GDP **per capita**, a rough measure of the average person's income. Rough, because it says nothing about how income is shared, or about unpaid work at home.

An ambulance races past and its siren drops in pitch as it passes. This is the **Doppler effect**: waves from an approaching **source** reach the **observer** squeezed together, at higher frequency; as the source leaves, the waves stretch out. Astronomers use exactly this to show distant galaxies rushing away from us.

To keep data honest on its journey, computers add checks: a **parity check** counts ones, a **checksum** sums the bytes, and **encryption** with a **public key** and a **private key** keeps the content secret.

Talk about it 说一说:

1. Nominal GDP rose 5%, inflation was 5%. Did the economy really grow?
2. Where else have you heard the Doppler effect? Describe the sound.

Physics

Topic 7 · Waves

 **time-base** 时基

 **y-gain** 垂直增益

 **intensity** 强度

• point source 点源			
» wavefront 波前			
<> rarefaction 稀疏			
≈ sine curve 正弦曲线			
↑ source 波源			
☉ observer 观察者			
(••) Doppler effect 多普勒效应			
(••) electromagnetic wave 电磁波			
☞ electromagnetic spectrum 电磁波谱			
☐ microwaves 微波			
☹ infrared 红外线			
☼ ultraviolet 紫外线			
[] X-rays X 射线			
☸ gamma-rays γ 射线			
≡ polarisation 偏振			

Chemistry

Topics 7–10 · Equilibria, Reaction kinetics, The Periodic Table: chemical periodicity, Group 2

☹ indicator 指示剂			
☹ rate of reaction 反应速率			
☹ collision frequency 碰撞频率			
✓ effective collision 有效碰撞			

✕ non-effective collision 无效碰撞

⌋ Boltzmann distribution 玻尔兹曼分布

⚡ catalysis 催化作用

⚙ reaction mechanism 反应机理

⊗ homogeneous catalyst 均相催化剂

≡ heterogeneous catalyst 多相催化剂

↔ periodicity 周期性

⦶ valence shell 价层

⊗ oxide 氧化物

↔ amphoteric 两性

💧 hydroxide 氢氧化物

💧 hydrolysis 水解

⚡ reactivity 反应活性

⊗ sulfate 硫酸盐

Biology

Topics 5–6 · The mitotic cell cycle, Nucleic acids and protein synthesis

♂ differentiate 分化

⊙ tumour 肿瘤

○ prophase 前期

⌘ spindle 纺锤体

≡ metaphase 中期

— equator 赤道			
↔ anaphase 后期			
↗ telophase 末期			
□ nucleotide 核苷酸			
⊙ base 碱基			
□ adenine 腺嘌呤			
⬡ ribose 核糖			
⬡ purine 嘌呤			
□ guanine 鸟嘌呤			
⊙ pyrimidine 嘧啶			
□ cytosine 胞嘧啶			
⊙ thymine 胸腺嘧啶			
□ uracil 尿嘧啶			
∞ double helix 双螺旋			
— strand 链			
⬡ deoxyribose 脱氧核糖			
⌘ phosphodiester bond 磷酸二酯键			
⌘ complementary base pairing 碱基互补配对			

Mathematics

Topics 2–4 · Pure Mathematics 2, Mechanics

⬡ trapezium rule 梯形法则			
√ root 根			

↕ sign change 变号

↺ iteration 迭代

↺ iterative formula 迭代公式

∞ converge 收敛

∫ substitution integration by 换元积分

⚙ Mechanics 力学

→ force 力

↗ components 分量

Further Mathematics

Topic 3 · Further Mechanics

○ horizontal circle 水平圆

○ vertical circle 竖直圆

↔ Hooke's law 胡克定律

↗ modulus of elasticity 弹性模量

↪ elastic potential energy 弹性势能

Computer Science

Topics 6–7 · Security, privacy and data integrity, Ethics and Ownership

🔒 ciphertext 密文

🔑 Symmetric encryption 对称加密

🔑 asymmetric encryption 非对称加密

 public key 公钥			
 private key 私钥			
 access control 访问控制			
 Validation 验证			
 check digit 校验位			
 Verification 核对			
 parity check 奇偶校验			
 checksum 校验和			
 cyclic redundancy check 循环冗余校验			
 pharming 域名欺骗			
 hackers 黑客			
 user accounts 用户账户			
 digital signatures 数字签名			
 anti-spyware 反间谍软件			
 access rights 访问权限			
 biometrics 生物识别			
 ethics 伦理			
 confidentiality 保密性			
 conflicts of interest 利益冲突			
 intellectual property 知识产权			
 copyright 版权			

Economics

Topics 3-4 · Government microeconomic intervention, The macroeconomy

≡ flow 流量

💎 wealth 财富

📦 stock 存量

↗️ progressive tax 累进税

% percentage 百分比

💰 benefits 福利金

↔️ transfer payments 转移支付

↕️ redistribution 再分配

🏠 national income 国民收入

⊕ gross domestic product
国内生产总值

⊕ gross national income 国民总收入

🏷️ nominal 名义

⊙ real 实际

👤 per capita 人均

🏠 standard of living 生活水平