

Morning Reading

Grade 11 · AS · Week 18

Read each word aloud, then copy the English word three times.

Reading

Read the passage aloud twice.

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 :

1. Find the logic error: a program to average two numbers computes $a + b / 2$.
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

 graphical methods			
			
 non-uniform			
			
 closed vector triangle			
			
 electrical			
			
 bungee jumper			
			
 rubber band			
			
 elastic hysteresis			
			
 Wave motion			
			
 γ -rays γ			
			
 principle of superposition			
			
 semiconductor diode			
			
 closed loop			
			
 balance length			
			

 driver cell			
<i>/ˈdraɪvə sel/</i>			
fundamental particles			
<i>/ˌfʌndəˈmentl ˈpɑːtɪklz/</i>			
 uniform gravitational field			
<i>/ˈjuːnɪfɔːm ˌɡrævɪˈteɪʃənl fiːld/</i>			
 negligible			
<i>/ˈneglɪdʒəbl/</i>			
 parabola			
<i>/pəˈræbələ/</i>			
 driving force			
<i>/ˈdraɪvɪŋ fɔːs/</i>			

Chemistry

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

 monomer			
<i>/ˈmɒnəmə/</i>			
 repeat unit			
<i>/rɪˈpiːt ˈjuːnɪt/</i>			
 poly(ethene)			
<i>/ˈpɒli/</i>			
 poly(chloroethene)			
<i>/ˈpɒli/</i>			
 non-biodegradable			
<i>/nɒn ˌbaɪəʊdɪˈɡreɪdəbl/</i>			
 synthetic route			
<i>/sɪnˈθetik ruːt/</i>			
 reagent			
<i>/rɪˈeɪdʒənt/</i>			
 by-product			
<i>/baɪ ˈprɒdəkt/</i>			

 infrared spectroscopy			
<i>/ˌɪnfəˈred spekˈtrɒskəpi/</i>			
 absorption			
<i>/əbˈsɔːpʃn/</i>			
 wavenumber			
<i>/ˈweɪvnʌmbə/</i>			
 mass spectrometry			
<i>/mæs spekˈtrɒmətri/</i>			
 mass-to-charge ratio			
<i>/mæs tə tʃɑːdʒ ˈreɪʃiəʊ/</i>			
 isotopic abundance			
<i>/ˌaɪsəˈtɒpɪk əˈbʌndəns/</i>			
 molecular ion			
<i>/məˈlekjələ ˈaɪən/</i>			
 molecular ion peak			
<i>/məˈlekjələ ˈaɪən piːk/</i>			
 fragmentation			
<i>/ˌfrægmənˈteɪʃn/</i>			
 fragment			
<i>/ˈfrægmənt/</i>			

Biology

Topics 10–11 · Infectious diseases, Immunity

 resistance			
<i>/rɪˈzɪstəns/</i>			
 phagocyte			
<i>/ˈfæɡəsaɪt/</i>			
 macrophage			
<i>/ˈmækərəfɪdʒ/</i>			
 phagocytosis			
<i>/ˌfæɡəsiˈtəʊsɪs/</i>			

 self antigen			
<i>/self ˈæntɪdʒən/</i>			
 non-self antigen			
<i>/non self ˈæntɪdʒən/</i>			
 immune response			
<i>/ɪˈmjuːn rɪˈspons/</i>			
 T-helper cell T			
<i>/tiː ˈhelpə sel/</i>			
 plasma cell			
<i>ˈplæzma sel/</i>			
 memory cell			
<i>ˈmeməri sel/</i>			
 T-killer cell T			
<i>/tiː ˈkɪlə sel/</i>			
 antigen-binding site			
<i>ˈæntɪdʒən ˈbaɪndɪŋ saɪt/</i>			
 variable region			
<i>ˈveəriəbl ˈriːdʒn/</i>			
 monoclonal antibody			
<i>ˈmɒnəʊklɒnl ˈæntɪbɒdi/</i>			
 hybridoma			
<i>ˈhaɪbrɪˈdəʊmə/</i>			
 diagnosis			
<i>ˌdaɪəɡˈnəʊsɪs/</i>			
 active immunity			
<i>ˈæktɪv ɪˈmjuːnɪti/</i>			
 passive immunity			
<i>ˈpæsɪv ɪˈmjuːnɪti/</i>			

 natural immunity			
<i>/ˈnætʃərəl ɪˈmjuːnɪti/</i>			
 artificial immunity			
<i>/ˌɑːtɪˈfɪʃl ɪˈmjuːnɪti/</i>			
 vaccination			
<i>ˌvæksɪˈneɪʃn/</i>			
 herd immunity			
<i>/hɜːd ɪˈmjuːnɪti/</i>			

Mathematics

Topics 1–5 · Pure Mathematics 1, Probability & Statistics 1

 continuity correction			
<i>/kontɪˈnjuːɪti kəˈrekʃn/</i>			
 standardisation			
<i>ˌstændədaɪˈzeɪʃn/</i>			
 point of inflexion			
<i>/pɔɪnt ɒv ɪnˈflekʃn/</i>			
 improper integral			
<i>/ɪmˈprɒpə ˈɪntɪgrəl/</i>			
 back-to-back			
<i>/bæk tə bæk/</i>			
 measure of central tendency			
<i>ˈmeʒə ɒv ˈsentrəl ˈtendənsɪ/</i>			
 Coding			
<i>ˈkəʊdɪŋ/</i>			
 assumed mean			
<i>/əˈsjuːmd miːn/</i>			

Further Mathematics

Topic 4 · Further Probability & Statistics

± sign test /saɪn test/			
⋮ Wilcoxon signed-rank test /ˈwɪlkɒksn saɪnd ræŋk test/			
Σ Wilcoxon rank-sum test /ˈwɪlkɒksn ræŋk sʌm test/			
f probability generating function /ˌprɒbəˈbɪlɪti ˈdʒenəreɪtɪŋ ˈfʌŋkʃn/			

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 /ˈhɑːdweə ˈɪntərʌpt/			
➤ software interrupt /ˈsɒftweə ˈɪntərʌpt/			
⚙️ fragmented /fræŋˈmentɪd/			
📁 incremental backups /ˌɪŋkrɪˈmentl ˈbækʌps/			
📦 object code /ˈɒbdʒekt kəʊd/			
⋯ context-sensitive prompts /ˈkɒntekst ˈsensɪtɪv prɒmpts/			

🔍 dynamic syntax checks /daɪˈnæmɪk ˈsɪntæks tʃeks/			
≡ prettyprint /ˈpreɪtɪprɪnt/			
🪜 single stepping /ˈsɪŋɡl ˈsteɪpɪŋ/			
📄 report window /rɪˈpɔːt ˈwɪndəʊ/			
⚖️ parity block check /ˈpærɪti blɒk tʃek/			
📜 code of conduct /kəʊd ɒv ˈkɒndʌkt/			
🔑 partial dependency /ˈpɑːʃl dɪˈpendənsi/			
🔧 sub-problem /sʌb ˈprɒbləm/			
📦 modules /ˈmɒdjuːlz/			
🏷️ identifier /aɪˈdentɪfaɪə/			
▶️ initialise /ɪˈnɪʃəlaɪz/			
⏏️ separator /ˈsepəreɪtə/			
💻 IDE /ˌaɪ diː ˈiː/			
🏗️ hierarchical decomposition /haɪəˈrɑːkɪkl ˌdɪːkɒmpəˈzɪʃn/			
📡 packet switching /ˈpækɪt ˈswɪtʃɪŋ/			

 modem			
/ˈmɒdəm/			
 ALU			
/ˌeɪ el ˈjuː/			
 time slice			
/taɪm sleɪs/			
 interrupt handler			
/ˈɪntərʌpt ˈhændlə/			
 properties			
/ˈprɒpətɪz/			

Economics

Topics 2–6 · The price system and the microeconomy, The macroeconomy, Government macroeconomic intervention, International economic issues

joint demand			
/dʒɔɪnt dɪˈmænd/			
alternative demand			
/ɔːlˈtɜːnətɪv dɪˈmænd/			
joint supply			
/dʒɔɪnt səˈplaɪ/			
value added			
/ˈvæljuː ˈædɪd/			
net national income			
/net ˈnæʃənl ˈɪŋkʌm/			
capital depreciation			
/ˈkæpɪtl dɪˌprɪːʃiˈeɪʃn/			
market prices			
/ˈmɑːkɪt ˈpraɪsɪz/			
basic prices			
/ˈbeɪsɪk ˈpraɪsɪz/			

technological unemployment			
/ˌteknəˈlɒdʒɪkl ʌnemˈplɔɪmənt/			
capital spending			
/ˈkæpɪtl ˈspendɪŋ/			
current spending			
/ˈkʌrənt ˈspendɪŋ/			
average tax rate			
/ˈævərɪdʒ tæks reɪt/			
marginal tax rate			
/ˈmɑːdʒɪnl tæks reɪt/			
credit regulation			
/ˈkredit ˌregjʊˈleɪʃn/			
trading possibility curve			
/ˈtreɪdɪŋ ˌpɒsəˈbɪlɪti kɜːv/			