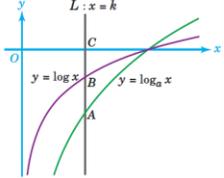
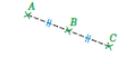
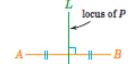
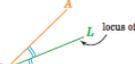
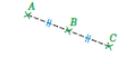
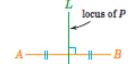
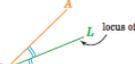
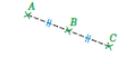
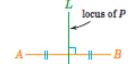
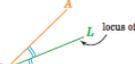
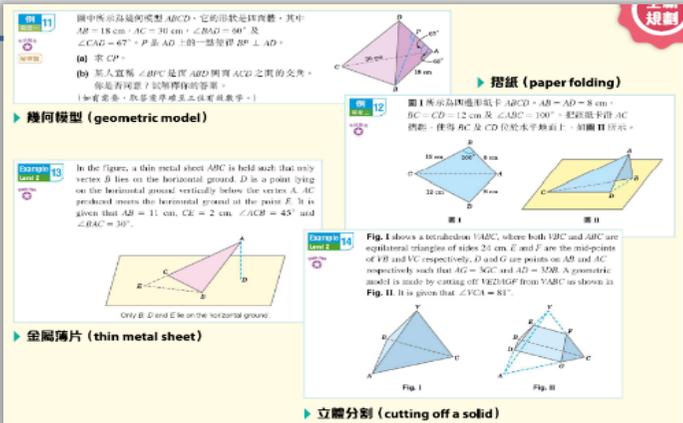


高中 DSE 乙部代數課題

		OXFORD 牛津	例子
對數函數 Logarithmic Functions	從圖像比較底的大小的 DSE 例題及習題	✓ (見 4B08 p.8.25 例 11, p.8.30 Q9–12)	<p>[Solve a problem related to the graphs of logarithmic functions]</p> <p>Example 11 Level 2</p> <p>The figure shows the graphs of $y = \log_a x$ and $y = \log x$, where a is a positive constant. A vertical line $L: x = k$ cuts the graph of $y = \log_a x$, the graph of $y = \log x$ and the x-axis at A, B and C respectively.</p>  <p>(a) Determine whether each of the following is true. Explain your answers. (i) $k < a$ (ii) $a > 10$</p> <p>(b) Express $\frac{AC}{BC}$ in terms of a.</p>
	比較數值大小的 DSE 例題及習題	✓ (見 4B08 p.8.38 例 18, p.8.45 Q1–4, p.8.47 Q17–18)	
	對數變換無附圖的 DSE 例題及習題	✓ (見 4B08 p.8.42, p.8.46–49 Q10–12, 24–26, 32, p.8.60 Q50–51)	<p>[Use logarithms to compare values]</p> <p>Example 18 Level 1</p> <p>(a) Find the values of $\log 1\,111^{340}$, $\log 2\,222^{300}$ and $\log 3\,333^{290}$. (Give the answers correct to 3 significant figures.)</p> <p>(b) Among $1\,111^{340}$, $2\,222^{300}$ and $3\,333^{290}$, which one is the greatest?</p>
	鉛垂軸涉及根式的內容及 DSE 試題	✓ (見 4B08 p.8.42, p.8.67 Q6)	<p>獨家</p>
函數變換 Transformations of Functions	助學生鞏固各種變換	文字描述 ✓ 圖像輔助 ✓ (見 5A03 p.3.55)	<p>獨家</p>
	函數的二次變換的 DSE 例題解說  先畫後解 	特設「先畫後解」及「解題要點」，解題圖像化，助學生逐步掌握 DSE 技巧 (見 5A03 p.3.56 – p.3.59)	<p>獨家</p>
	分節練習中的 DSE 題型題目	<p>平移兩次 ✓ 伸縮 + 平移 ✓ 反射 + 平移 ✓ 綜合長題目 ✓ (見 5A03 p.3.63 – p.3.65)</p>	<p>最齊全</p>

高中 DSE 幾何課題

項目		OXFORD 牛津	例子																			
Locus 軌跡 圓的方程 Equation of Circles	DSE 沒附圖的題目的應對方案  先畫後解 	例題教授繪圖解題的技巧 ✓ (5B07 例 10、11、12， 5B08 例 11、13、21) <div style="border: 1px solid red; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; line-height: 20px; color: red; font-weight: bold;">獨家</div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0f2f1;">Geometric objects</th> <th style="background-color: #e0f2f1;">Situation</th> <th style="background-color: #e0f2f1;">Geometric relationship</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1. Three points A, B and C</td> <td>(a) Slope of $AB =$ slope of BC</td> <td>A, B and C are collinear </td> </tr> <tr> <td>(b) Coordinates of $B =$ coordinates of the mid-point of the line segment AC</td> <td>B is the mid-point of the line segment AC </td> </tr> <tr> <td rowspan="2">2. Two straight lines L_1 and L_2</td> <td>(a) Slope of $L_1 =$ slope of L_2</td> <td>L_1 is parallel to L_2, i.e. $L_1 \parallel L_2$ </td> </tr> <tr> <td>(b) Slope of $L_1 \times$ slope of $L_2 = -1$</td> <td>L_1 is perpendicular to L_2, i.e. $L_1 \perp L_2$ </td> </tr> <tr> <td>3. Straight line L and line segment AB</td> <td>P is equidistant from A and B, where P is any point on L</td> <td>L is the perpendicular bisector of the line segment AB </td> </tr> <tr> <td>4. Straight line L and $\angle ABC$</td> <td>Perpendicular distance from P to $AB =$ perpendicular distance from P to BC, where P is any point on L</td> <td>L is the angle bisector of $\angle ABC$ </td> </tr> </tbody> </table>	Geometric objects	Situation	Geometric relationship	1. Three points A, B and C	(a) Slope of $AB =$ slope of BC	A, B and C are collinear 	(b) Coordinates of $B =$ coordinates of the mid-point of the line segment AC	B is the mid-point of the line segment AC 	2. Two straight lines L_1 and L_2	(a) Slope of $L_1 =$ slope of L_2	L_1 is parallel to L_2 , i.e. $L_1 \parallel L_2$ 	(b) Slope of $L_1 \times$ slope of $L_2 = -1$	L_1 is perpendicular to L_2 , i.e. $L_1 \perp L_2$ 	3. Straight line L and line segment AB	P is equidistant from A and B , where P is any point on L	L is the perpendicular bisector of the line segment AB 	4. Straight line L and $\angle ABC$	Perpendicular distance from P to $AB =$ perpendicular distance from P to BC , where P is any point on L	L is the angle bisector of $\angle ABC$ 
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詳細介紹幾何關係 (geometric relationship)	✓ (見 5B07 p.7.20) <div style="border: 1px solid red; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; line-height: 20px; color: red; font-weight: bold;">獨家</div>																					
練習題目種類	多元化 周界 ✓ 面積 ✓ (見 5B07 p.7.29–30 Q27–29, 31)																					
四心題目	大量 ✓ (見 5B07 p.7.30 Q31, p.7.38 Q34, 5B08 p.8.30 Q23–25, Q34, p.8.58 Q45–47)																					
三角學的應用：三維空間 Applications of Trigonometry in 3-dimensional Problems	幾何模型、摺紙、金屬薄片、立體分割的例題	齊 4 款 ✓ (見 5B10 p.10.37–10.44 例 11–14) <div style="border: 1px solid red; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; line-height: 20px; color: red; font-weight: bold;">與時並進</div>																				
	DSE 題型練習	習題 10C 全是 DSE 題型，共 18 條 <div style="border: 1px solid red; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; line-height: 20px; color: red; font-weight: bold;">最齊全</div>																				
	例題和習題的立體模型	大量 <div style="border: 1px solid red; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; line-height: 20px; color: red; font-weight: bold;">獨家</div>																				

高中 DSE 統計課題

項目		OXFORD 牛津	例子
排列、組合與概率 Permutations, Combinations and Probability	助學生鞏固排列與組合	兩大圖表看清常見限制 (p.5.23, p.5.36)	
	例題鋪排及解說	強化解說，逐步解釋所得數目的因由 (見 5A05 p.5.30 例 16)	
	涉及等比數列無限項之和的 概率的 DSE 例題及習題	✓ (見 602 p.2.44 例 25、p.2.53 Q23–24)	
離差的度量 Measures of Dispersion	DSE 中涉及未知數的題型的 例題	✓ (見 5B11 p.11.13 例 7、p.11.14 例 8、 p.11.26 例 12、p.11.81–83 Q1、2)	
	改變數據的影響 (包括初中內容) 的講解及例題	✓ 以表列作比較 ✓ 3 條例題 (見 5B11 p.11.61–62 例 22–24)	

更多貼心設計：

習題標示考試題型 考試題型， 增加學習動機及方便選題	各習題均備有程度三題目， 讓學生挑戰，激發潛能	備有海外競賽題目， 擴闊學生視野
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