This markscheme is confidential and for the exclusive use of examiners in this examination session.

-2-

It is the property of the International Baccalaureate and must not be reproduced or distributed to any other person whom the authorization of IB Cardiff. Note54 From 2 of 26

**Implementation**: The following examples illustrate correct use of the **follow through** process in straightforward situations.

- 6 -

Question: An investment problem with two different rates of interest and a total amount of \$600 split across the rates in consecutive periods:

Markscheme			Candidate's Script	Marking
(a)	\$ 600 × 1.02	(M1)	Case (i)	
	= \$ 612	(AI)	(a) Final amount after 1 <sup>th</sup> period = $\$ 600 \times 1.02$	(M1)
OR	answer only	(G2)	= \$ 602	(A0)
(b)	$(\frac{612}{2} \times 1.02) + (\frac{612}{2} \times 1.04)$ = \$ 630.36	(M1) (A1)(ft)	(b) Amount after $2^{nd}$ period = $301 \times 1.02 + 301 \times 1.04$ = \$ 620.06	(M1) (A1)(ft)
OR answer only (G1) Note: The (M1) is for splitting the value from (a) and forming a sum of products.			but note Case (ii) an ( <i>M0</i> ) almost always prohibits the <b>associated</b> ( <b>ft</b> ) so	
Here the ( <b>ft</b> ) indicates a possible follow through from part (a).		(a) $\$ 600 \times 1.02 = \$ 602$	(M1)(A0)	
			(b) $\$ 602 \times 1.04 = \$626.08$	(Miller)(ft)
	5.	non	Case (iii) $+253$ (a) $5200 \times 1.02 = -602$	(M1)(A0)
	preview T	ad	(b) No whing. 620.06 given of answer.	( <i>G0</i> )(ft)
	F10 1		Case (iv) (a) \$612	(G2)
			(b) \$630.36	(G1)

– 16 –

(ii)	1.1	(A1)(UP) if (AP) used in part (i) but
		(A1)(ft) for correct follow through to
		exact answer if
		(UP) used in part (1).
(i)	66	(A1)(AP) if $(AP)$
		not used previously
		but (A1)(UP) otherwise.
(ii)	1.1 cms <sup>-1</sup>	
		(A1)(ft)

## 8 Graphic Display Calculators

Candidates will often be obtaining solutions directly from their calculators. They must use mathematical notation, not calculator notation. No method marks can be awarded for incorrect answers supported only by calculator notation. The comment 'I used my GDC' cannot receive a method mark.

Preview from Notesale.co.uk Page 16 of 26

Question 1 continued

<ul> <li>(A1) for correct scales and labels</li> <li>(A3) for all ten points plotted correctly</li> <li>(A2) for eight or nine points plotted correctly</li> <li>(A1) for six or seven points plotted correctly</li> </ul>	(A4)	[4 marks]
Note: Award at most $(A0)(A3)$ if axes reversed.		
(b) (1) $x = 42$	(AI)	
(ii) $\overline{y} = 64$	(A1)	[2 marks]
(c) $(\overline{x}, \overline{y})$ plotted on graph and labelled, M	(A1)(ft)(A1)	[2 marks]
Note: Award (A1)(ft) for position, (A1) for label.		
(d) -0.998	(G2)	[2 marks]
Note: Award ( <i>G1</i> ) for correct sign, ( <i>G1</i> ) for correct absolute value.		
(e) line on graph	(A1)(ft)(A1)	[2 marks]
Notes: Award (A1)(ft) for line through their M, (A1) for approximate correct intercept (allow between 83 and 85). It is not necessary the line is seen to intersect the y-axis. The line must be strated any mark to be awarded.	ely hat for <b>CO-UK</b>	
(f) $y = -0.470(25) + 83.7$	(M1)	
Note: Award (M1) for exhibitition into formula as since indication method on their graph. $y = -0.470(0.5) + 33.7$ is incorrect.	of	
= 72.0 (accept 71.95 and 72)	(A1)(ft)(G2)	[2 marks]
<b>Note:</b> Follow through from graph only if they show working on their graph Accept $72 \pm 0.5$ .	ph.	
(g) Yes since 25 % lies within the data set and $r$ is close to -1	(R1)(A1)	[2 marks]
<b>Note:</b> Accept Yes, since $r$ is close to $-1$		
<b>Note:</b> Do not award ( <i>R0</i> )( <i>A1</i> ).		
	Tota	ıl [16 marks]