AN ROINN OIDEACHAIS AGUS EOLAÍOCHTA

Leaving Certificate Applied 2001

Mathematical Applications

(100 marks)

Thursday, 7th June, 2001
Morning 9.30 am to 11.30 am

Marking Scheme

General Directions

1. Write your EXAMINATION NUMBER in this space:

2. Write all answers in the boxes or spaces in this answer book.

3. Show necessary work alongside your answers or on pages 7 and 8.

4. Calculators may be used.

5. Answers involving money should be given correct to the nearest penny, unless otherwise indicated.

ATTEMPT ANY **FOUR** QUESTIONS.
ALL QUESTIONS CARRY EQUAL MARKS.

For the Examiner only

Question	Mark
1	
2	
3	
4	
5	
Total	

MARKING SCHEME

LEAVING CERTIFICATE APPLIED, 2001

MATHEMATICAL APPLICATIONS

GENERAL GUIDELINES FOR EXAMINERS

1. Penalties of three types are applied to candidates' work as follows:
   - Blunders   - mathematical errors/omissions   (-3)
   - Slips   - numerical errors   (-1)
   - Misreadings   (provided task is not oversimplified)   (-1).

   Frequently occurring errors to which these penalties must be applied are listed in the scheme. They are labelled as B1, B2, B3,......, S1, S2, S3,...., M1, M2, etc. Note that these lists are not exhaustive.

2. When awarding attempt marks, e.g. Att(3), it is essential to note that
   - any correct relevant step in a part of a question merits *at least* the attempt mark for that part
   - if deductions result in a mark which is lower than the attempt mark, then the attempt mark must be awarded
   - a mark between zero and the attempt mark is never awarded.

3. Worthless work is awarded zero marks. Some examples of such work are listed in the scheme and they are labelled as W1, W2,....etc.

4. The *same* error in the *same* section of a question is penalised *once* only.

5. Special notes relating to the marking of a particular part of a question are indicated by an asterisk. These notes immediately follow the box containing the relevant solution.

6. Particular cases, verifications and answers derived from diagrams (unless requested) qualify for attempt marks only.

7. The phrase "and stops" means that no more work is shown by the candidate.

QUESTION 1(50 MARKS)

Part (a)	**10 marks**	**Att 3**
Part (b)	**10 marks**	**Att 3**
Part (c)	**10 marks**	**Att 3**
Part (d)	**10 marks**	**Att 3**
Part (e)	**10 marks**	**Att 3**

Part (a)	**10 marks**	**Att 3**

Calculate his total mileage for the return journey.

(a)	**10 marks**	**Att 3**

(a)	272 miles

Blunders (-3)
B1: Fails to double, i.e. answer = 136miles
B2: List evident… each mileage missing.

Slips (-1)
S1: Each numerical error to a max. of –3.

Attempts (3)
A1: Any indication of addition (provided work is clearly indicated).

Part (b)	**10 marks**	**Att 3**

Express the total mileage in km, given that 1 mile = 1.61km. Write your answer to the nearest km.

(b)	**10 marks**	**Att 3**

(b)	272×1.61km $= 437.92$km $= 438$km

* Accept use of student's answer from part (a)

Blunders (-3)
B1: Divides by 1.61
B2: Inverts 272 miles
B3: Misplaced decimal.

Slips (-1)
S1: Each numerical error to a max. of –3
S2: Failure to round or incorrect rounding
S3: Rounds individual conversions before totalling
S4: Incorrect or omitted units.

Attempts (3 marks)
A1: 272 ± 1.61
A2: Converts one of the six distances correctly/incorrectly and stops.

Worthless (0)
W1: Incorrect answer with no work.

Part (c)   **10 marks**   **Att 3**

The driver leaves Sligo at 06:15 and arrives home again at 15:45. The stops he makes for the delivery and for breaks total 1.5 hours.
Calculate his actual driving time.

(c)   **10 marks**   **Att 3**

(c) $15:45 - 06:15 = 9:30 - 1:30 = 8$ hours or $15.75 - 6.25 = 9.5 - 1.5 = 8$ hours

*   Accept answer = 480 minutes.

Blunders (-3)
B1: 1 hour = 100 minutes
B2: 06:15 – 15:45 = 10:30
B3: 06:15 + 15:45 = 22:00 and continues
B4: Adds instead of subtracts 1.5 hours
B5: Ignores 1.5 hours + B4
B6: Minutes ≠ correct decimal of an hour unless B1
B7: Multiples by 1.5 + possible B1
B8: Misplaced decimal.

Slips (-1)
S1: Numerical error to a max. of –3
S2: Incorrect or omitted units.

Attempts (3 marks)
A1: Converts 1.5 to 1:30 only
A2: Other calculations involving relevant numbers
A3: Answer between 8:00 and 9:30
A4: Answer = 22hrs stops.

Part (d)	**10 marks**	**Att 3**

> (d) Calculate the average speed for the journey, in km/h,
>
> using the formula S = — .

(d)	**10 marks**	**Att 3**

(d)	$S = \dfrac{438}{8}$
	$= 54.75$ km/h

* Accept candidates answer from parts (b) and (c).

Blunders (-3)
B1: Multiples by 8
B2: Correct substitution and stops
B3: Each incorrect substitution unless S1
B4: Inverts 438/8
B5: Misplaced decimal
B6: 1 hour = 100 minutes.

Slips (-1)
S1: D = candidate's answer from part (a)
S2: each numerical error to a max. of −3
S3: Ignores answer from part (c) and lets T = 9.5
S4: Incorrect or omitted units e.g. mph
S5: Answer = 55.

Attempts (3 marks)
A1: One substitution only correct/incorrect
A2: 219± 8.

Part (e)   **10 marks**   **Att 3**

> (e) The truck used for the journey runs on diesel which costs 64.9p per litre. It travels an average of 12 km per litre. Calculate the cost of the fuel used on the journey.

(e)   **10 marks**   **Att 3**

(e)	$\dfrac{438}{12} = 36.5 \times 64.9$ $2368.85p$ $= 23.69p = IR\pounds23.69$	or	$\dfrac{64.}{1} = 5.4083333 \times 438$ $= 2368.85p$ $= 2369p = IR\pounds23.69$

* Accept answer in pence form.

Blunders (-3)
B1: $438 \div (12 \times 64.9)$ and continues
B2: $438 \times 12 \times 64.9$ and continues
B3: $438 \times 12 \div 64.9$ and continues
B4: $64.9 \div (12 \times 438)$ and continues
B5: $64.9 \div 12 = 5.40833$ stops +B4 +S1
B6: $438 \div 12 = 36.5$ stops + B3 +S1
B7: Uses answer from part (d)
B8: Misplaced decimal.

Slips (-1)
S1: Failure to round or incorrect rounding
S2: Incorrect or omitted units
S3: Each numerical error to a max. of –3.

Attempts (3 marks)
A1: 12×64.9 stops
A2: Answer = ([candidate's answer from (b)] $\times$ 64.9÷12) ± IR£5.

Worthless (0)
W1: 64.9 ± 12.

QUESTION 2 (50 MARKS)

Part (a)	20 marks	Att (2,3,2)
Part (b)	10 marks	Att 3
Part (c)	5 marks	Att 2
Part (d)	10 marks	Att 3
Part (e)	5 marks	Att 2

Part (a)   **20 marks (5,10,5)**   **Att (2,3,2)**

> (a) Fill in the table for Irish notes and coins and calculate the totals.

(a) Notes   **5 marks**   **Att 2**

(a) Irish notes and notes total

Notes:	Total Amount:
IR£50	£200
IR£20	£120
IR£10	£180
IR£5	£220
Notes Total:	£720

*Accept 4+6+18+44= IR£720 or IR£720 only

Blunders (-3)
B1: Omits one or more amounts
B2: Failure to total.

Slips (-1)
S1: Numerical error to a max. of –3
S2: Not converting to IR£
S3: Does not transfer answers to table
S4: Failure to round or incorrect rounding.

Attempt (2 marks)
A1: Enters the number of notes giving notes total = 72. (But treat as slip if rectified on lodgment slip.)

(a) Coins   **10 marks**   **Att 3**

(a) Irish coins and coins total

Coins:	
IR£1	£75
50p	£60
20p	£5
10p	£5
5p	
Coins Total:	£145

Blunders (-3)
B1: Fails to convert to IR£
B2: Failure to total
B3: Misplaced decimal
B4: Enters fictional amount into 5p row.

Slips (-1)
S1: Numerical error to a max. of –3
S2: Failure to round or incorrect rounding.

Attempt (3 marks)
A1: Enters the number of coins giving coins total = 270. (But treat as slip if rectified on lodgment slip.)

(a) Total cash   **5 marks**   **Att 2**

(a) Total cash

Total Cash IR£:	£865

* Accept candidate's Notes total + Coins total.

Slips (-1)
S1: Each excess amount included to a max. of –3.

Attempt (2 marks)
A1: Amount = IR£86.80. (But treat as slip if rectified on lodgment slip.)

(b) Fill in the section for IR£ cheques and euro cheques and calculate the totals.

(b) Irish notes and notes total

		Cheques
		IR£ cheques:
		£165.94
		£28.47
		£976.52
		IR£ cheques total:
		£1170.93
	euro cheques:	2 000
		1 500
	euro cheques total:	3 500

Blunders (-3)
B1: Omits an IR£ cheque
B2: Omits one euro cheque
B3: Subtracts instead of adds
B4: Omits IR£ cheque and/or euro cheque total
B5: Ignores IR£ cheques or euro cheques + B4
B6: Euro cheques total = IR£ cheque total + euro cheque total unless S2
B7: Misplaced decimal.

Slips (-1)
S1: IR£ cheque entered into euro cheque section and vice versa
S2: Euro cheques total = IR£ cheque total + euro cheque total but correct in lodgment slip
S3: Incorrect units with amount
S4: Numerical error to a max. of –3
S5: Failure to transfer calculations to table.

Attempts (3 marks)
A1: One substitution correct/incorrect.

Worthless(0 marks)
W1: 2000 × IR£165.94 and/or 1500 ×IR£28.47.

(c) Transfer the totals to the LODGMENT form below.

(c) Transfer totals to LODGMENT form.

Notes	IR£	**£720**
Coin IR£		**£145**
Total Cash	IR£	**£865**
IR£ Cheque total	IR£	**£1170.93**
Cheque Total **3500** . (multiply by fixed conversion rate .787564 for IR£ equivalent) IR£		

* Accept candidate's answers from parts (a) and (b).

Blunders (-3)
B1: Each total omitted.

Slips (-1)
S1: Totals correct on table but incorrectly positioned on lodgement slip to a max. of -3

Attempts (2 marks)
A1: One entry only correct/incorrect.

Worthless (0)
W1: Ignoring table and fills in the IR£50, IR£20, IR£10, IR£5 for Notes section and/or
     similar for Coin section and stops.

Part (d)   **10 marks**   **Att 3**

(d)   Convert the euro cheque total to IR£ as directed on the lodgement form.

(d)   **10 marks**   **Att 3**

(d) $3500 \times .787564 = IR£2756.474$
                           $= IR£2756.47$

*Accept candidate's answer from part (b).

Blunders (-3)
B1: Divides by .787564
B2: Inverts 3500
B3: Converts correctly one of the euro cheques only
B4: Misplaced decimal.

Slips (-1)
S1: Each numerical to a max.of −3
S2: Failure to round or incorrect rounding
S3: Rounds .787564 and continues.

Worthless (0)
W1: Answer = 3500
W2: $3500 \pm .787564$.

(e) Complete the lodgment form to obtain the lodgment total.

(e)   **5 marks**   **Att 2**

(e) Lodgment total.

Notes	IR£	£720
Coin IR£		£145
Total Cash	IR£	£865
IR£ Cheque total	IR£	£1170.93
Cheque Total 3500 . (multiply by fixed conversion rate .787564 for IR£ equivalent) IR£		£2756.47
TOTAL IR£		**£4792.40**

* Accept candidate's answer from parts (c) and (d).

Blunders (-3)
B1: Subtracts instead of adds
B2: Each total omitted
B3: Failure to calculate TOTAL having filled in the euro conversion
B4: Totals ignoring the euro section
B5: Misplaced decimal.

Slips (-1)
S1: Each excess total added to a max. of -3
S2: Each numerical error to a max. of –3.

Attempts (2 marks)
A1: Fills in notes total or coin total or total cash into TOTAL only.

QUESTION 3 (50 MARKS)

Part (a)	10 marks	Att 3
Part (b)	10 marks	Hit/Miss
Part (c)	15 marks	Att 5
Part (d)	5 marks	Att 2
Part (e)	10 marks	Att 3
Part (a)	10 marks	Att 3

(a) What is the area, in m^2, of seating Area A and of seating Area B?

(a)	10 marks	Att 3

(a) $A = 12m \times 16m = 192m^2$
    $B = 8m \times 16m = 128 \ m^2$

Blunders (-3)
B1: Length of area B ≠16m
B2: Area of A only + B1
B3: Divides to get area, once only
B4: Area of B only.

Slips (-1)
S1: Answer = 16(12 +8) = 320 m^2
S2: Each numerical error to a max. of -3
S3: Omitted or incorrect units.

Attempts (3 marks)
A1: Calculating one, or both, perimeter correct/incorrect.
A2: 12 × 16 × 8.

Worthless (0)
W1: A = 12 and/or B = 8 and stops.

Part (b)	10 marks	Hit/Miss

(b) Each seat in the hall needs a space measuring 80cm × 50cm. Calculate the area of space needed for each seat. Give your answer in m^2.

(b)	10 marks	Hit/Miss

(b) 80cm × 50cm = 4000cm^2 = 0.4 m^2 or 0.8m × 0.5m = 0.4 m^2

* Correct answer (including correct units) required for 10 marks. Otherwise, 0 marks.

Part (c)	15 marks	Att 5

(c) How many seats, in total, fit into Seating Areas A and B?

(c) (192/0.4 = 480seats) + (128/0.4 = 320seats) = 800 seats in total	
((12/0.8) × (16/0.5)) + ((8/0.8) × (16/0.5)) = (15 × 32) + (10 ×32) = 480 + 320 = 800 seats	((12/0.5) × (16/0.8)) + ((8/0.5) × (16/0.8)) = (24 × 20) + (16 × 20) = 480 + 320 = 800 seats

* Accept candidate's answers from parts (a) and (b).

Blunders (-3)
B1: Multiples instead of divides by either area or dimension of the seat, once only
B2: Misplaced decimal
B3: Calculates for A or B only + S1.

Slips (-1)
S1:Fails to total
S2: Each numerical error to a max. of-3.

Attempts (5marks)
A1: Dimension of A and/or B ×0.4.
A2: Dimension of A and/or B ± 0.4.
A3: Sketching of 80 × 50 boxes on given diagrams stops
A4: Dimension divided by 0.8 or 0.5.

Worthless (0)
W1: Answer = 12 + 8 +16.

Part (d)	5 marks	Att 2

(d) All seats are sold at IR£2.50 each. How much money does this raise?

(d)   800 × IR£2.50 = IR£2000.

*Accept candidate's answer from part (c).

Blunders (-3)
B1: Divides by £2.50
B2: Inverts 800
B3: Misplaced decimal.

Slips (-1)
S1:Omits or incorrect units
S2: Each numerical error to a max. of –3.

Attempts (2marks)
A1:2.5/.4 stops
A2: A relevant number × IR£2.50 stops.

Worthless (0)
W1 Answer = IR£2.50
W2: 800 +/- IR£2.50

> (e)   It is decided to increase the price of seats by 50%. How much extra money does this raise?

(e)   **10 marks**   **Att 3**

(e) 50%(2000) = IR£1000extra

or

50%(£2.50) = £1.25 × 800 = IR£1000extra

or

150%(£2.50) = £3.75 × 800 = £3000 and £3000 – £2000 = IR£1000 extra

*   Accept candidate's answer from parts (c) and (d).

Blunders (-3)
B1:   50% ≠ 1/2
B2:   Inverts 800
B3:   Inverts 50%
B4:   Inverts £2000
B5:   Adds £2000 to 150% value
B6:   Calculates 150% total cost only
B7:   Misplaced decimal.

Slips (-1)
S1:   Each numerical error to a max. of –3
S2:   Failure to round or rounds incorrectly
S3:   Omitted or incorrect units.

Misreadings (-1)
M1:   Increase number of seats by 50% and continues.

Attempts (3 marks)
A1:   Answer = ½ stops
A2:   Calculates 50% or 150% of IR£2.50 stops.

QUESTION 4 (50 MARKS)

Part (a)	15 marks	Att 5
Part (b)	10 marks	Att 3
Part (c)	10 marks	Att 3
Part (d)	10 marks	Att 3

Part (a)	15 marks	Att 5

(a) Calculate the daily hours worked by Jack Spratt and write your answers on his Time Card.

(a)	15 marks	Att 5

(a) Calculate and fill in daily hours.

	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.
Daily Hours	4:30	1:30	9:20	9:30	9:40	8:00	9:30

Blunders (-3)
B1: Adds /mishandles/ignores 1hour lunch break unless S2.

Slips (-1)
S1: Each incorrect time assuming at least one correct.
S2: Ignores 1 hr Lunch Break in Daily Hours but rectifies it in the Summary section.

Attempts (5 marks)
A1:Any effort to subtract two times

NOTE:
If at least one answer correct then slip each incorrect answer. Only exceptions are B1 or S2.
For either of these to apply, there must be no other errors present and the error must be consistent across all 5 days.

Part (b)   **10 marks**   **Att 3**

ABC Clothing Company operates a standard week of 40 hours from Monday to Friday. Complete the SUMMARY section of the Time Card to show the number of weekend, standard and overtime hours Jack worked in the week ending 25/05/2001.

(b)   **10 marks**   **Att 3**

SUMMARY:
Sat/Sun: **6** hrs   Mon-Fri Standard Week **40** hrs   Mon-Fri Overtime **6** hrs

*   Accept candidate's answer from part (a).

Blunders (-3)
B1:   1 hour = 100 minutes
B2:   Failure to subtract 40 hrs to calculate overtime
B3:   Failure to calculate Sat/Sun hrs
B4:   Sat/Sun. hours included in Mon/Fri. overtime
B5:   Fails to calculate Mon/Fri. overtime +B2.

NOTE:
Only apply B3 or B4, **not** both.

Slips (-1)
S1:   Hours filled into (c) but omitted in Summary
S2:   Rounding or truncating the overtime answer.

Attempts (3 marks)
A1:   Adds/attempts to add time for 2 days.

Worthless (0)
W1:   A start and/or a finishing time filled into Time Card.

NOTE:
Proceed as follows to check Mon/Fri overtime:
1.   Add candidate's own times for Mon to Fri and subtract 40 hrs.
2.   Check for: (a) correct, or (b) B2, or (c) B4, (each with or without S2).
3.   Repeat the above two steps using 1 hour = 100mins.
4.   Any other answer will give 0, or attempt mark, or B5, as appropriate.

(c) Jack is paid IR£7.40 per hour for standard working hours. Heis paid time and a half for weekday overtime and double for weekend work. Fill in the table to calculate his gross earnings for the week ending 25/05/2001.

(c)   **15 marks**   **Att 5**

(c)	Fill table and calculate gross earnings		
	Standard week 40 hrs	@ IR£7.40 =	IR£ 296.00
	Sat/Sun __6__ hrs	@ IR£14.80 =	IR£ 88.80
	Overtime __6__ hrs	@ IR£11.10 =	IR£ 66.60
	Gross earnings		IR£ 451.40

OR

$(40 \times IR£7.40) + (12 \times IR£7.40) + (9 \times IR£7.40) = 61 \times IR£7.40 = IR£ 451.40$

* Accept candidate's from part (b).

Blunders (-3)
B1:   Time and a half $= 0.5$(rate)
B2:   Divides by 1.5 instead of multiplying (applied once only)
B3:   Failure to calculate Gross earnings having filled out the rest of the table
B4:   Having filled in the hours and the rate fails to calculate
B5:   Ignores Sat/Sun section + B4
B6:   Ignores Overtime section + B4
B7:   Divides rate by the number of hours, once only
B8:   Failure to use overtime multipliers each time
B9:   Misplaced decimal
B10: 1 hour = 100 minutes unless already penalised already in Q4.

Slips (-1)
S1:   Each numerical error to a max. of –3
S2:   Failure to round or incorrect rounding.

Misreadings(-1)
M1:   Uses double time for weekdays and time and half for Sat/Sun.

Attempts (5 marks)
A1:   Fills in hours only
A2:   Fills in one rate only
A3: $40 \pm £7.40$
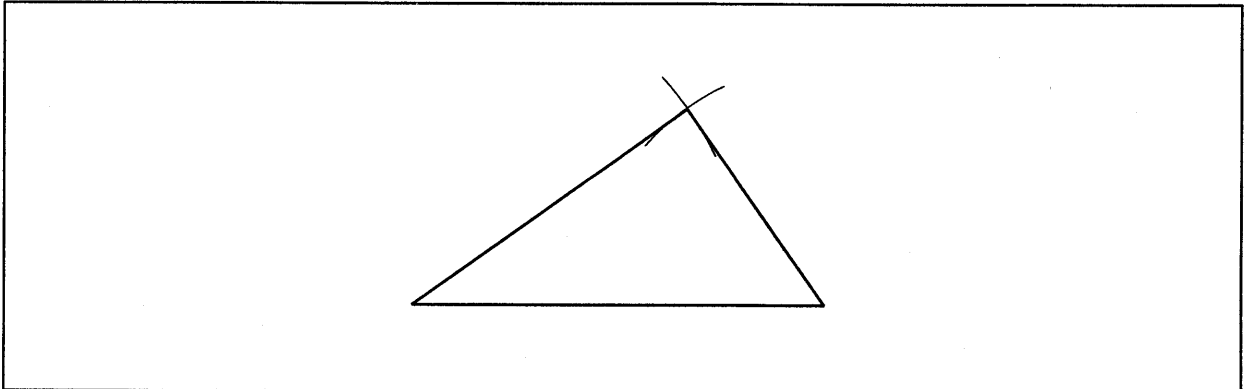
Worthless(0 marks)
W1:   Answer = IR£7.40.

(d) Construct a triangle with base 5.5 cm and sides 4.5 cm and 3.2 cm

(d)   **10 marks**   **Att 3**

*   Tolerance ± 0.1cm for slip, ± 0.5cm for blunder.

Blunders (-3)
B1: 2 correct sides drawn only
B2: Side outside tolerance 0.5 cm, applied each time.

Slips (-1)
S1: Each side outside tolerance of 0.1 cm, unless B2.
S2: Incorrect units.

Attempts (3 marks)
A1: One side, correct/incorrect, drawn only
A2: Triangle not drawn with straight edge.

QUESTION 5 (50 MARKS)

Part (a)	15 marks	Att 5
Part (b)	10 marks	Att 3
Part (c)	10 marks	Att 3
Part (d)	10 marks	Att 3
Part (e)	`5 marks	Att 2

Part (a)	15 marks	Att 5

(a) Find the number of each type of house in the survey. Write the answers in the table.

(a)	15 marks	Att (a)

(a) Complete table

House type	%	Number
Two storey Detached	20%	300
Two Storey Semi-detached	50%	750
Bungalow	10%	150
Terraced	5%	75
Other	15%	225

Blunders (-3)

B1: $n\% \neq \dfrac{}{10}$ e.g. 1500/20 = 75 two storey detached houses

B2: Inverts %, once only

B3: Inverts 1500, once only

B4: Each row omitted to a max. of 3 blunders.

Slips (-1)

S1: Miss-match of house type and % to a max. of –3

S2: Each numerical error to a max. of –3.

Attempts (5 marks)

A1: Only % column filled correctly/incorrectly

A2: One row correctly calculated

A3: Fills degrees into % column.

Part (b)   **10 marks**   **Att 3**

(b)   For 40 of the houses the students also record the number of children in each house, as follows:

1,2,0,6,5,1,1,3,2,0,1,4,5,1,2,0,1,1,3,3,2,1,1,3,2,1,4,0,2,3,4,0,2,1,3,3,2,0,3,1.

Complete the frequency distribution table:

(b)   **10 marks**   **Att 3**

(b)   Complete table

Number of children in house	0	1	2	3	4	5	6
Number of houses	6	12	8	8	3	2	1

Blunders (-3)
B1: Each incorrect entry.

Attempts (3)
A1: At least one correct entry.

Part (c)   **10 marks**   **Att 3**

(c)   What is the mean (average) number of children per house.

(c)   **10 marks**   **Att 3**

(c) $\dfrac{(0)(6)+(1)(12)+(2)(8)+(3)(8)+(4)(3)+(5)(2)+(6)(1)}{40} = \dfrac{8}{4} = 2$

*   Accept candidate's answer from part (b).

*   Accept correct answer no work.

Blunders (-3)
B1: Total number of houses = 7
B2: Total number of houses = 5
B3: Multiples rather than divides by number of houses
B4: Total number of children = 0+1+2+3+4+5+6 = 21 and continues
B5: Answer = 80, + B3
B6: Divides number of children by 1500.

Slips (-1)
S1: Each numerical error to a max. of –3.

Attempts (3 marks)
A1: Mean = 40.
A2: Mean = 40/7
A3: Mean = 21
A4: mode = 1

| **Part (d)** | **10 marks** | **Att 3** |

| (d) | The numbers 1 to 42 are used in a lottery. What is the probability that tha first number is less than 10? |

| (d) | $\dfrac{\ \ }{4}$ or $\dfrac{\ \ }{1}$ |

* Accept "9:42", "9 in 42", "9 out of 42", "9 of 42".

Blunders (-3)
B1: No fraction or ratio set up
B2: Answer = 9 +B1
B3: Answer = 42 + B1
B4: Answer = 3 +B1
B5: Answer = 14 +B1
B6: Answer = 42/9
B7: Answer = 1/42
B8: Answer = 9 to 42.

Slips (-1)
S1: 10/42
S2: Answer in decimal form truncated.

Attempts (3 marks)
A1: Any proper fraction other than 9/42, 3/14, 42/9, 14/3, 1/42.

Worthless (0)
W1: Answer = 10 × 42.

| **Part (e)** | **5 marks** | **Att 2** |

| (e) | A person tosses a coin. What is the probability of tails showing up? |

| (e) | — |

* Accept answer = "50%" or "1 in 2 chances" or "0.5"

Blunders (-3)
B1: No fraction or ratio set up.
B2: Inverts

Slips(-1)
S1: Answer = "50:50"
S2: Answer = "Evens"

Attempts (2 marks)
A1: Any proper fraction other than ½.
A2: Answer = 2, or 1.