Line Graphs-Answers

1.

Tier & Question					Correct response	Additional guidance
3-5	4-6	5-7	6-8			**Throwing dice**
10	5					
a	a			2m	Indicates only the five points with positive integer coordinates whose sum is 6 eg	! *Point(s) not indicated accurately* Accept in parts (a) and (b) provided the pupil's intention is clear ! *Additional points indicated that assume zero to be on the dice* eg • (0, 6) and/or (6, 0) indicated If this is the only error, mark as 1, 0 ! *Additional points with non-integer coordinates whose sum is 6 indicated* eg
				or 1m	Indicates at least four correct points with no incorrect points or Indicates all five correct points with not more than one incorrect point	If this is the only error, mark as 1, 0
b	b			2m	Indicates only the six points with positive integer coordinates such that $y = x$ eg	! *Additional point indicated that assumes zero to be on the dice* eg • (0, 0) indicated If this error has been penalised in part (a), condone If this is the only error and it has not been penalised in part (a), mark as 1, 0 ! *Additional points with non-integer coordinates such that $y = x$ indicated* eg
				or 1m	Indicates at least five correct points with no incorrect points or Indicates all six correct points with not more than one incorrect point	If this error has been penalised in part (a), condone If this is the only error and it has not been penalised in part (a), mark as 1, 0

Tier & Question				Throwing dice (cont)	
3-5	4-6	5-7	6-8	Correct response	Additional guidance
10	5				

				Correct response	Additional guidance
c	c		1m	Completes the sentence to give a correct rule eg ■ One less than the number on the red dice ■ Red − 1 ■ Needing 1 added to get the number on the red dice	✓ *Minimally acceptable rule* eg • 1 below the other dice • The number below the red dice ✓ *Rule expressed algebraically* eg • $b = r - 1$ • $r - 1$! *Rule that does not use the given starting phrase* Accept only if unambiguous eg, accept • Red = blue + 1 eg, do not accept • 1 more on the red ✗ *Ambiguous rule* eg • − 1 • 1 below • A number below the red dice • The number lower than the red dice • Followed by the number on the red dice ✗ *Incomplete rule* eg • Less than the number on the red dice ✗ *Rule not generalised* Do not accept rules only shown through particular numerical examples eg • $2 - 1 = 1, 3 - 2 = 1, 4 - 3 = 1$ etc

Key Stage 3: 2004 Paper 1 Level 3-5

2.

Daylight hours

	Correct response	Additional guidance
3m	Gives a complete correct response with both months identified correctly and correct values given within the ranges as shown below, ie June 18.5 to 19.5 inclusive December 5 to 6 inclusive	**!** *Months not written in full* Accept unambiguous indications eg, for December • D Do not accept ambiguous indication that could refer to other months eg, for June • J **!** *Dates given* Ignore eg, for June accept • June 15th
or **2m**	Makes not more than one error, but if the error is in identifying a month the pupil must follow through from that incorrect month eg • Jun 20 *(error)* Dec 6 • June 19 February *(error)* 10	**!** *Follow through* Note that follow through must be applied from incorrect months. Ranges for correct values are shown below Jan 6.5 to 7.5 inclusive Feb 9.5 to 10 inclusive Mar 12 to 12.5 inclusive Apr 15 to 16 inclusive May 17.75 to 18.25 inclusive (Jun 18.5 to 19.5 inclusive) Jul 17.5 to 18 inclusive Aug 15 to 15.5 inclusive Sep 12 to 12.5 inclusive Oct 9 to 9.5 inclusive Nov 6.5 to 7.5 inclusive (Dec 5 to 6 inclusive)
or **1m**	Makes not more than two errors or omissions, but if the error is in identifying month(s) the pupil must follow through from that incorrect month(s) eg • June 12 *(error)* Dec 7 *(error)* • July *(error)* 18 Oct *(error)* 9 • June 12 *(error)* Jan *(error)* 7	**!** *Months omitted or months identified ambiguously* Treat each omission or ambiguous response as one error eg, for 2m accept • J *(ambiguous)* 19 Dec 5.8 eg, for 1m accept • *(omits)* 19 *(omits)* 5.8

Key Stage 3: 2004 Paper 1 Level 4-6

3.

Tier & Question						
3-5	4-6	5-7	6-8		**Daylight hours**	
14	9	2				
					Correct response	**Additional guidance**

3m Gives a complete correct response with both months identified correctly and correct values given within the ranges as shown below, ie
 	
June
18.5 to 19.5 inclusive
December
5 to 6 inclusive
	! *Months not written in full*
	Accept unambiguous indications
	eg, for December
	  • D
	Do not accept ambiguous indication that could refer to other months
	eg, for June
	  • J
	
	! *Dates given*
	Ignore
	eg, for June accept
	  • June 15th

or
2m Makes not more than one error, but if the error is in identifying a month the pupil must follow through from that incorrect month
eg
  ■ Jun
    20 (error)
    Dec
    6
  ■ June
    19
    February (error)
    10
	! *Follow through*
	Note that follow through must be applied from incorrect months. Ranges for correct values are shown below
	
	Jan 6.5 to 7.5 inclusive
	Feb 9.5 to 10 inclusive
	Mar 12 to 12.5 inclusive
	Apr 15 to 16 inclusive
	May 17.75 to 18.25 inclusive
	(Jun 18.5 to 19.5 inclusive)
	Jul 17.5 to 18 inclusive
	Aug 15 to 15.5 inclusive
	Sep 12 to 12.5 inclusive
	Oct 9 to 9.5 inclusive
	Nov 6.5 to 7.5 inclusive
	(Dec 5 to 6 inclusive)

or
1m Makes not more than two errors or omissions, but if the error is in identifying month(s) the pupil must follow through from that incorrect month(s)
eg
  ■ June
    12 (error)
    Dec
    7 (error)
  ■ *July (error)*
    18
    Oct (error)
    9
  ■ June
    12 (error)
    Jan (error)
    7
	! *Months omitted or months identified ambiguously*
	Treat each omission or ambiguous response as one error
	eg, for 2m accept
	  • J *(ambiguous)*
	    19
	    Dec
	    5.8
	eg, for 1m accept
	  • *(omits)*
	    19
	    (omits)
	    5.8

Key Stage 3: 2005 Paper 2 Level 3-5

4.

Tier & Question						Mobile phones	
3-5	4-6	5-7	6-8				
13	6				Correct response	Additional guidance	
				1m	Gives a value between 1 and 2 inclusive	! *'Million' repeated* eg, for the first mark	
				1m	Gives a value between 49.5 and 50.5 inclusive	• $1\frac{1}{2}$ million • 1 500 000 Condone	
				1m	Gives a value between 10 and 12 inclusive		

Key Stage 3: 2005 Paper 2 Level 4-6

5.