

# Mathematics

## Mark scheme Test A

**2003**

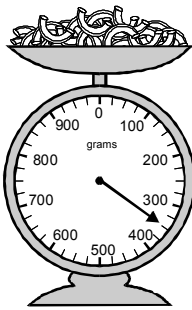
0 min

0 marks

1. (a) 65 1m  
(b) 2400 1m

**[2]**

2. Arrow drawn to 350, as shown: 1m



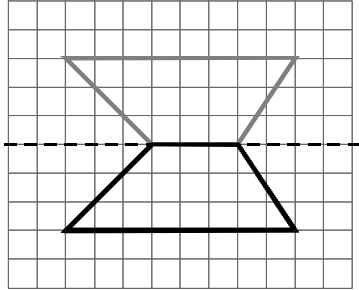
*Arrow should be closer to 350 than to 325 or 375 for award of the mark.*

*Accept arrows not originating from the centre of the dial.*

**[1]**

3. Diagram completed as shown:

1m



*Accept slight inaccuracies in drawing provided the intention is clear.*

[1]

4. Two numbers circled as shown:

1m

84 87 72 76 90

*Do not award the mark if additional incorrect numbers are circled.*

*Accept alternative unambiguous indications, eg ticks, numbers crossed or underlined.*

[1]

5. 111

1m

[1]

6. (a) £112

1m

(b) £16

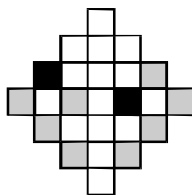
1m

*Do not accept 36 or Tuesday or £1.12*

[2]

7. Diagram marked as shown:

1m



*Both squares must be correctly marked.*

*Accept alternative indications, eg squares ticked, crossed or circled.*

[1]

8. Table completed as shown: 1m

Type of coin	Number of coins
1p	160
10p	<b>16</b>
20p	<b>8</b>

*Both numbers must be correct for the award of the mark.*

[1]

9. (a) Tom **4** Nadia **28** 1m

- (b) 4 1m

[2]

10. (a) **11** AND **16** 1m

- (b) An explanation which recognises that the numbers in circles are multiples of 5, eg 1m  
U1

- Because all the circles are multiples of 5.

Because 35 is in the five times table.

*Both numbers must be correct for the award of the mark.*

*Answers may be written in either order.*

*Do not accept vague or arbitrary explanations, eg*

- 'Because you keep on adding 5';

*'Because the circles are 5 more each time'.*

[2]

11. (a) 42 1m

- (b) 11 1m

[2]

12. Award **TWO** marks for the correct answer of 250 Up to 2m

If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg

- $150 \times 5 = 750$
- $1000 - 750 =$  wrong answer

*Calculation must be performed for the award of ONE mark.*

[2]

13. 18 456 1m

[1]

14. (a) Teri 1m  
*Accept recognisable misspellings.*  
**Do not accept 16.8**

(b) 5 1m

[2]

15. Award **TWO** marks for all three shape names written in the correct order as shown: Up to 2m

- rectangle
- kite
- square

If the answer is incorrect, award **ONE** mark for two shape names written in the correct order.

*Accept recognisable misspellings.*

*For the first shape, accept oblong or parallelogram.*

*For the third shape, accept rhombus or parallelogram but **do not** accept diamond.*

[2]

16. Award **TWO** marks for all three numbers correct as shown: Up to 2m

• a multiple of 9 

2	7
---	---

 OR 

7	2
---	---

a square number 

2	5
---	---

a factor of 96 

1	2
---	---

If the answer is incorrect, award **ONE** mark for two numbers correct.

[2]

17. Award **TWO** marks for the correct answer of Up to 2m

10.8
------

 AND 

17.3
------

If the answer is incorrect, award **ONE** mark for

**either**

**1m0.8** in the first box

**or**

a number in the second box, which is 6.5 greater than the answer given in the first box.

*Numbers must be in the correct order.*

[2]

18.  $\frac{13}{35}$  1m  
U1 [1]

If the answer is incorrect, award **ONE** mark for two numbers correct. [2]

19. Award **TWO** marks for the correct answer of 50 Up to 2m  
If the answer is incorrect, award **ONE** mark for evidence of appropriate working using common units, eg  
  - $1500 \div 30 =$  wrong answer

**Calculation must be performed for the award of ONE mark.**  
**Do not accept  $1.5 \div 30$  as evidence of appropriate working.**

[2]

20. Award **TWO** marks for two different answers as shown: Up to 2m  

5

and

2

or

2

and

5

AND

3.5

and

3.5

If the answer is incorrect, award **ONE** mark for any one of the above answers.  
**The two answers may be given in either order.**  
**Do not accept '5 and 2' AND '2 and 5' for two marks.**

[2]

21. (a) Answer in the range 30% to 36% inclusive. 1m  
 (b) An explanation which recognises that both teams won half their games, 1m  
 but both teams played a different number of games, eg U1  
  - Half of 30 is not the same as half of 24;

Because of  $30 \div 15$  but of  $24 \div 12$ ;  
 Because 15 is more than 12.

**No mark is awarded for circling 'No' alone.**  
**Do not accept vague or arbitrary explanation, eg**  
  - The netball team played more games;**Both teams won half their games;**  
**30 is more than 24'.**  
**If 'Yes' is circled but a correct unambiguous explanation is given, then award the mark.**

[2]

22. 20 1m [1]

23. (10, 9) 1m

*Coordinates must be in the correct order.*

*Accept unambiguous answers written on the diagram.*

[1]

24. 64 1m

[1]

25. 

2	5	10	20
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 1m

OR

U1

4	5	10	20
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*Accept the four numbers listed in any order.*

[1]

26. Award **TWO** marks for the correct answer of 20 Up to 2m  
U2

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

- $30 \times \text{£}5 = \text{£}150$   
 $\text{£}150 - \text{£}110 = \text{£}40$   
 $\text{£}40 \div \text{£}2 = 20$

$\text{£}110 \div 30 = \text{£}3$  each, with  $\text{£}20$  left over  
 $\text{£}20 \div \text{£}2 = 10$   
 $30 - 10 = 20$

OR

a trial and improvement method, eg

- $30 \times \text{£}3 = \text{£}90$   
 $10 \times \text{£}3 + 20 \times \text{£}5 = \text{£}130$   
 $15 \times \text{£}3 + 15 \times \text{£}5 = \text{£}120$

*Calculation must be performed for the award of ONE mark.*

*A 'trial and improvement' method must show evidence of improvement, but a final answer need not be reached for the award of ONE mark.*

[2]