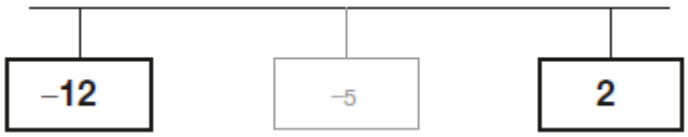
Mark schemes

1. Award **TWO** marks for both numbers correct as shown.



If the answer is incorrect, award **ONE** mark for one number correct.

***Do not** accept 12−*

Accept +2 in the right-hand box.

Up to 2

[2]

2. Award **TWO** marks for the correct answer of £5.75

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- £6.75 × 3 = £20.25
  £20.25 + £8.50 = £28.75
  £28.75 ÷ 5

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

3. A rectangle with area 6 cm^2

A rectangle must be drawn but need not be shaded.

[1]

4. Award **TWO** marks for the correct answer of 145

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- 144
  136
  142
  143
  152
  148
  + 150
  1015

1015 ÷ 7

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

5. Award **TWO** marks for the correct answer of 90g.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- $300 \div 400 = \frac{3}{4}$

  $\frac{3}{4} \times 120$

  *Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

6. Award **TWO** marks for the correct answer of 96

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

- 10.5 × 2 = 21
  21 + 11 = 32
  32 × 3

  *Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

7. Award **TWO** marks for all three calculations completed correctly, as shown:

5.3 **÷ 10** = 0.53

5.3 **× 1000** = 5300

5.3 **÷ 100** = 0.053

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

Up to 2

[2]

8. Award **TWO** marks for all three numbers correctly rounded:

120,000

125,000

124,500

If the answer is incorrect, award **ONE** mark for any two numbers correctly rounded.

Up to 2

[2]

9. 24 **AND** 48 only

Numbers may be given in either order.

[1]

10. Award **TWO** marks for three boxes completed correctly as shown:

	Rounded to the **nearest hundred**
20,906	20,900
2,090.6	2,100
209.06	200

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

Up to 2m

[2]

11. Award **TWO** marks for the correct answer of 35p **OR** £0.35.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 50p + 20p + 10p + 10p + 5p = 95p
  £2.00 − 95p = £1.05
  £1.05 ÷ 3

*Accept for **ONE** mark an answer of £35 **OR** £35p **OR** 0.35p as evidence of an appropriate method.*

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

12. Award **TWO** marks for the correct answer of 119.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 140 ÷ 20 = 7
  3 × 7 = 21
  140 – 21

OR

- 140 ÷ 20 = 7
  20 – 3 = 17
  17 × 7

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

13. Award **TWO** marks for any three of the following numbers written in any order:

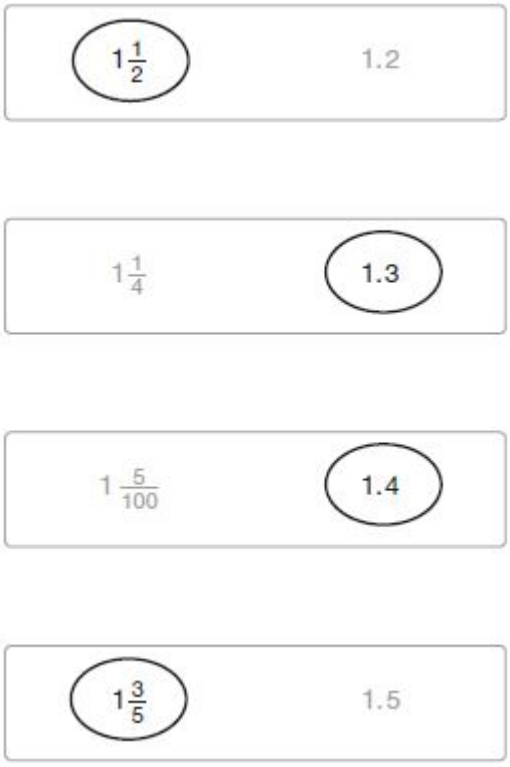
- 2
- 6
- 10
- 30

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

Up to 2m

[2]

14. Award **TWO** marks for all four rows completed correctly as shown:



If the answer is incorrect, award **ONE** mark for three rows completed correctly.

Accept alternative unambiguous positive indications of the correct numbers, e.g numbers ticked.

Up to 2m

[2]

15. An explanation showing an understanding:

- that this specific triangle has angles 70, 70 and 40

OR

- of the properties of an equilateral triangle − all angles are equal (60°)

and therefore that this triangle cannot be equilateral, e.g.

- The angles aren't 60°
- There is not a 60° angle
- It has two different angles (70° and 40°) so it can't be equilateral
- The angles aren't the same
- An equilateral triangle has 60° + 60° + 60°
- All the angles are the same in an equilateral triangle
- It's an isosceles triangle.

(In the context of this question, the term isosceles triangle is treated as not including equilateral triangles as a special type, as the national curriculum does not specify this at key stage 2.)

Do not *accept vague or incomplete explanations, e.g.*

- *The other angle is 70°*
- *They aren't (all) the same. (No reference to angles)*
- *An equilateral triangle has equal angles. (Does not say all.)*

Do not *accept explanations which include incorrect mathematics or incorrect information that is relevant to the explanation, e.g.*

- *40 + 70 = 110 + 70 = 180*

[1]

16. An explanation that shows Adam has four times as many balloons as Chen, e.g.

- 24 × 6 is 4 times as many as 12 × 3
- 144 is four times 36
- 144 ÷ 4 = 36
- 144 ÷ 36 = 4
- 36 × 4 = 144
- Adam buys twice as many bags of twice as many balloons, so it's doubled twice
- 24 is double 12 and 6 is double 3, so it's doubled twice
- Chen buys half the amount of bags and each bag has half the number of balloons, so he has $\frac{1}{4}$ of the amount.

Do not *accept vague or incomplete explanations, e.g.*

- *Adam buys more bags and there are more balloons in each bag*
- *Adam buys twice as many bags of twice as many balloons*
- *24 is double 12 and 6 is double 3.*

[1]

17. Award **TWO** marks for the correct answer of £1.68

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 20 − 14.96 = 5.04
  5.04 ÷ 3

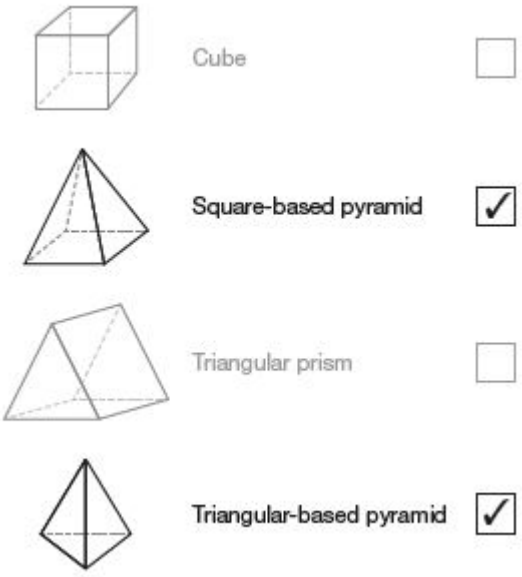
Accept for ***ONE*** *mark an answer of £168 OR £168p as evidence of an appropriate method.*

Answer need not be obtained for the award of ***ONE*** *mark.*

Up to 2m

[2]

18. Award **TWO** marks for both pyramids ticked as shown:



Accept alternative unambiguous positive indications, e.g. Y.

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

- the two pyramids and not more than one incorrect shape ticked

OR

- only one correct shape ticked and no incorrect shape ticked.

Up to 2m

[2]

19. (a) 140

The answer is a time interval

1

(b) 2

1

[2]

20. Award **TWO** marks for the correct answer of 184

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

- sight of 92

OR

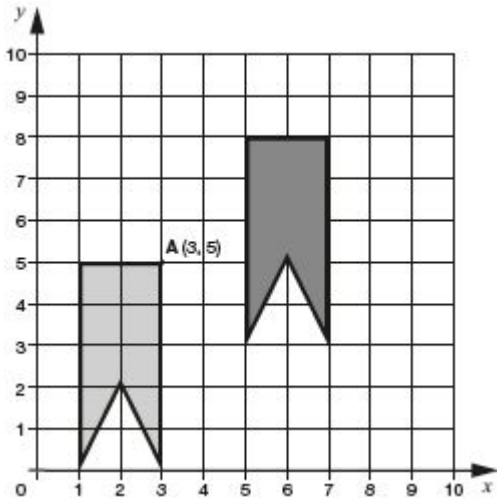
- evidence of appropriate method, e.g.
  - $\frac{1}{3} \times 276 = 92$
    $92 \times 2 =$
  - $276 \div 3 = 92$
    $276 - 92 =$

*Answer need not be obtained for the award of **ONE** mark.*

Up to 2 marks

[2]

21. Shape located correctly, as shown:



Accept slight inaccuracies in drawing (see guidance).

*Shape need not be shaded for the award of **ONE** mark.*

[1]

22. Award **TWO** marks for the correct answer of 40

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, e.g.

- $2.6 \times 1{,}000 = 2{,}600$
  $2{,}600 \div 65 =$
- $2.6 \div 0.065 =$

*Answer need not be obtained for the award of **ONE** mark.*

***Do not** accept an incorrect conversion or no conversion of units, e.g.*

- *260 ÷ 65 =*
- *2.6 kg ÷ 65 g*

Up to 2m

[2]

23. 24

[1]

24. £140

Do not *accept 140%*

[1]

25. Award **TWO** marks for only two correct boxes ticked, as shown:

There are more cheetahs than jaguars.	✓
The total number of lions and tigers is 10	
One-quarter of the big cats are cheetahs.	✓
There are more than 5 jaguars.	

Award **ONE** mark for:

- only one correct box ticked and no incorrect boxes ticked

OR

- two correct boxes ticked and one incorrect box ticked.

Accept alternative unambiguous positive indications, e.g. Y.

Up to 2 marks

[2]