Co-ordinates and Angles KS2 SATS Standard Worksheet Answers

1. (a)   ✓ boxes for: (3,2), (5,4) and (10,9).

All three coordinates must be ticked for the mark to be awarded.

[1]

(b)   Explains that (11,12) cannot be on the line because the value of the first number is always one more than the value of the second number in the coordinate, eg (9,8), or similar explanation.

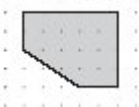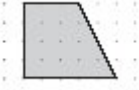*Explanation can use words or diagrams.*

[1]

2. (4, 3)   *No mark is awarded for (3, 4).*   1

*If answer box is blank, accept 4,3 **OR** 4 3 on diagram.*

[1]

3. Table completed as shown: 1

shape	number of right angles
	✎ ....**3**.........
	✎ ....**2**.........

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

[1]

4.
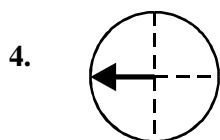
[1]

5. (10, 7) (12, 7) (10, 10)

*All correct, in any order for **1 mark**.*

[1]

6. (a)   (2, 1)   1

Both the numbers must be correct and in the correct order.
Acceot (2, 1) on diagram with or without comma and brackets.

(b)   Explanation which either implies that **B** has the coordinates (12, 6) **OR** that (11, 5) cannot be on the line because of the general relationship between the points, eg:

- 'Because it's 12, 6'

- 'If you count up in 2's and 1's it doesn't come to 11, 5'
- 'The first numbers are always even'
- 'First should be twice the second number'

> ***Do not*** *accept arbitrary or vague reasons, such as:*
>
> *'She miscounted';*
> *'Because the bottom line doesn't go up to 11';*
> *'Because it's in a pattern'.*

[2]

7. (a) (8, 7) ***Do not*** *accept (7, 8).* 1

> *Accept co-ordinates written on diagram with or without commas and brackets, eg:*
>
> - *(8 7)*
> - *8 7*
> - *8,7*

(b) (5, 3) ***Do not*** *accept (3, 5).* 1

> *Accept co-ordinates written on diagram with or without commas and brackets, eg:*
>
> - *(5 3)*
> - *5 3*
> - *5,3*

[2]

8. (3, 5)

> *Do not accept (5, 3).*

[1]

9. (5, 2) 1

> *Coordinates must be written in the correct order.*
> *Accept unambiguous answers written on the diagram.*

[1]

10. (4, 3) 1

> *Coordinates must be written in the correct order.*
>
> *Accept (6, 3), (4, –1) or (6 –1)*
>
> *Accept answers written on the diagram, with or without brackets and commas.*

[1]

11. (4, 6) 1

> ***Both*** *numbers must be correct for the award of the mark.*
> *Accept correct answers written on the diagram with or without brackets.*
> *Coordinates must be written in the correct order.*

[1]

12. (a)   (0, 10)   1

   Coordinates must be written in the correct order.

   Accept unambiguous answers written on the diagram.

   (b)   (10, 20)   1

   *If the answer for 15a is (10, 0) **AND** the answer to 15b is
   (20, 10), award **ONE** mark only, in the 15b box.*

   [2]

13.   Answers in the range 74° to 76° inclusive.   1

   [1]

14.   Award **TWO** marks for three letters in the correct regions of the sorting   Up to 2m
   diagram, as shown:

A		B
D	C	

   Award **ONE** mark for two letters in the correct regions of the sorting diagram.

   ***Do not** accept letters that are written in more than one region.*

   *Accept alternative indications such as lines drawn from the
   shapes to the appropriate regions of the sorting diagram.*

   [2]

15.   270°   1m

   [1]

16. (a)   Answer in the range 101mm to103mm inclusive.   1m

   (b)   Answer in the range 21 degrees to 23 degrees inclusive.   1m

   [2]

17.   28   1

   [1]

18. (a)   (11,9)   1

   (b)   (15,3)   *Accept answers written on the diagram with or without*   1

   *brackets and commas. Co-ordinates must be in the correct
   order.*

   [2]

19. (a)   (5, 4)   *Both co-ordinates must be correct and in the correct order.*   1

   *Accept unambiguous answers written on the diagram
   (with or without brackets or commas).*

   (b)   (10, 0)   *Both co-ordinates must be correct and in the correct order.*   1

   *Accept unambiguous answers written on the diagram
   (with or without brackets or commas).*

   [2]

20. (40, 27)   1m

         Coordinates must be written in the correct order.
         Accept unambiguous answers written on the diagram.

[1]

21. (10, 9)   1m

       Coordinates must be in the correct order.
         Accept unambiguous answers written on the diagram.

[1]

22. (5, 2)   1 m

         Coordinates must be in the correct order.
         Accept unambiguous answers written on the diagram.

[1]

23. $x = \boxed{35^\circ}$ 1

[1]

24. Answer in the range 93 degrees to 97 degrees inclusive   1 m

[1]

25. (a) $x = \boxed{55^\circ}$ 1m

       (b) $y = \boxed{145^\circ}$ 1m

         If the answers for (a) and (b) are transposed, but otherwise
         *correct, award **ONE** mark only, in the (b) box.*

[2]

26. 107   1

[1]

27. Award **TWO** marks for the correct answer of 18°   Up to 2m

         Calculation need not be performed for the award of the
         mark.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate
method, eg 90 – 60 – 12

[2]

28. Award **TWO** marks for the boxes ticked and crossed as shown: Up to 2m
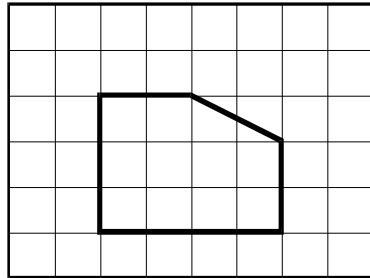
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       ☒
       ☒
       ☑

If the answer is incorrect, award **ONE** mark for any three boxes ticked or
crossed correctly **OR** two boxes correctly ticked and the other two boxes left blank.

[2]

29. (a) 9   1

     (b) 30   1

[2]

30. Any pentagon which has three right angles, eg   1

*The shape need not follow grid lines. Allow slight inaccuracies
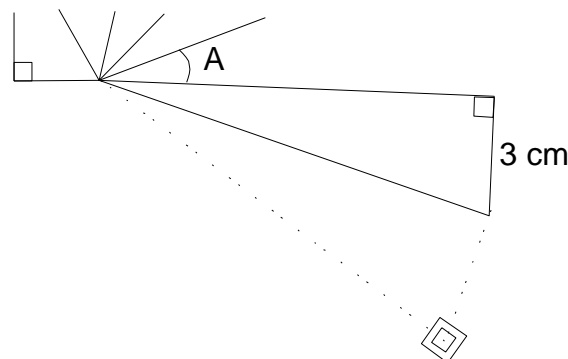in drawing, provided the intention is clear*

[1]

31. (a) See diagram below.   up to 2
Award **TWO** marks for triangle vertex on or within inner boundary.
Award **ONE** mark for triangle vertex between boundaries
or on outer boundary.

No marks awarded for triangle vertex outside outer boundary.

***No marks** are awarded for incomplete triangles or triangles not
attached to main diagram, **even if** vertex is within prescribed
boundaries.*

     (b) An answer in the range 23° to 27° inclusive.   1

Answer need not be a whole number.

[3]