

Sequences Summer Holiday

Instructions

Each number on the grid corresponds to a question number. For each question, you will need to work out the value of x in the given sequence. Find the answer in the table to discover which colour to shade this section.

White	1
Yellow	2
Orange	3
Light Green	5
Dark Green	8
Blue	13
Purple	21

Extension

Work out the n^{th} term for each sequence, where x denotes the first term.



Questions

1. $x, 5, 9, 13, 17$

 n^{th} term: _____

2. $x, 14, 15, 16, 17$

 n^{th} term: _____

3. $x, 29, 37, 45, 53$

 n^{th} term: _____

4. $x, 4, 7, 10, 13$

 n^{th} term: _____

5. $x, 18, 15, 12, 9$

 n^{th} term: _____

6. $x, 18, 23, 28, 33$

 n^{th} term: _____

7. $x, 31, 41, 51, 61$

 n^{th} term: _____

8. $x, 4, 5, 6, 7$

 n^{th} term: _____

9. $x, 15, 17, 19, 21$

 n^{th} term: _____

10. $x, 17, 13, 9, 5$

 n^{th} term: _____

11. $x, 14, 23, 32, 41$

 n^{th} term: _____

12. $x, 27, 33, 39, 45$

 n^{th} term: _____

13. $x, 16, 24, 32, 40$

 n^{th} term: _____

14. $x, 16, 11, 6, 1$

 n^{th} term: _____

15. $x, 10, 17, 24, 31$

 n^{th} term: _____

16. $x, 14, 23, 32, 41$

 n^{th} term: _____

17. $x, y, 25, 27, 29$

 n^{th} term: _____

18. $x, 20, 32, 44, 56$

 n^{th} term: _____

19. $x, 8, 11, 14, 17$

 n^{th} term: _____

20. $x, 7, 12, 17, 22$

 n^{th} term: _____

21. $x, 24, 27, 30, 33$

 n^{th} term: _____

22. $x, 11, 9, 7, 5$

 n^{th} term: _____

23. $x, 20, 19, 18, 17$

 n^{th} term: _____

24. $x, 6, 4, 2, 0$

 n^{th} term: _____

25. $x, 41, 61, 81, 101$

 n^{th} term: _____

Sequences Summer Holiday Answers

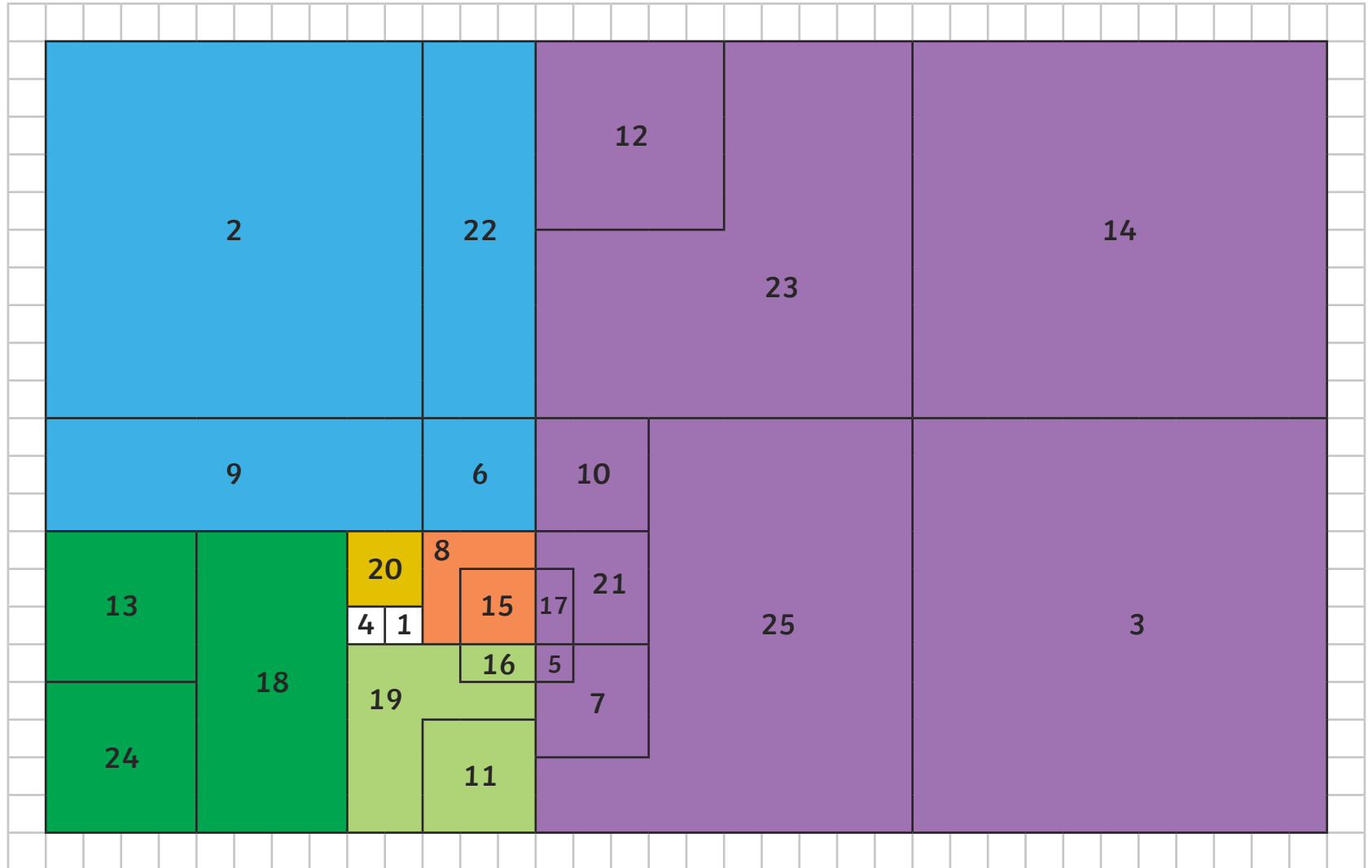
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Work out the n^{th} term for each sequence, where x denotes the first term.



Questions

1. $x, 5, 9, 13, 17$

 n^{th} term: $4n - 3$, so x is (1) **white**.

2. $x, 14, 15, 16, 17$

 n^{th} term: $n + 12$, so x is (13) **blue**.

3. $x, 29, 37, 45, 53$

 n^{th} term: $8n + 13$, so x is (21) **purple**.

4. $x, 4, 7, 10, 13$

 n^{th} term: $3n - 2$, so x is (1) **white**.

5. $x, 18, 15, 12, 9$

 n^{th} term: $24 - 3n$, so x is (21) **purple**.

6. $x, 18, 23, 28, 33$

 n^{th} term: $5n + 8$, so x is (13) **blue**.

7. $x, 31, 41, 51, 61$

 n^{th} term: $10n + 11$, so x is (21) **purple**.

8. $x, 4, 5, 6, 7$

 n^{th} term: $n + 2$, so x is (3) **orange**.

9. $x, 15, 17, 19, 21$

 n^{th} term: $2n + 11$, so x is (13) **blue**.

10. $x, 17, 13, 9, 5$

 n^{th} term: $25 - 4n$, so x is (21) **purple**.

11. $x, 14, 23, 32, 41$

 n^{th} term: $9n - 4$, so x is (5) **light green**.

12. $x, 27, 33, 39, 45$

 n^{th} term: $6n + 15$, so x is (21) **purple**.

13. $x, 16, 24, 32, 40$

 n^{th} term: $8n$, so x is (8) **dark green**.

14. $x, 16, 11, 6, 1$

 n^{th} term: $26 - 5n$, so x is (21) **purple**.

15. $x, 10, 17, 24, 31$

 n^{th} term: $7n - 4$, so x is (3) **orange**.

16. $x, 14, 23, 32, 41$

 n^{th} term: $9n - 4$, so x is (5) **light green**.

17. $x, y, 25, 27, 29$

 n^{th} term: $2n + 19$, so x is (21) **purple**.

18. $x, 20, 32, 44, 56$

 n^{th} term: $12n - 4$, so x is (8) **dark green**.

19. $x, 8, 11, 14, 17$

 n^{th} term: $3n + 2$, so x is (5) **light green**.

20. $x, 7, 12, 17, 22$

 n^{th} term: $5n - 3$, so x is (2) **yellow**.

21. $x, 24, 27, 30, 33$

 n^{th} term: $3n + 18$, so x is (21) **purple**.

22. $x, 11, 9, 7, 5$

 n^{th} term: $15 - 2n$, so x is (13) **blue**.

23. $x, 20, 19, 18, 17$

 n^{th} term: $22 - n$, so x is (21) **purple**.

24. $x, 6, 4, 2, 0$

 n^{th} term: $10 - 2n$, so x is (8) **dark green**.

25. $x, 41, 61, 81, 101$

 n^{th} term: $20n + 1$, so x is (21) **purple**.