

CONTINUING SEQUENCES

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

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|---|---|
| 1. 2, 5, 8, 11, 14, _____, _____, _____ 17, 20, 23 | 2. 7, 11, 15, 19, 23, _____, _____, _____ 27, 31, 35 |
| 3. -4, -1, 2, 5, 8, _____, _____, _____ 11, 14, 17 | 4. 12, 9, 6, 3, 0, _____, _____, _____ -3, -6, -9 |
| 5. 0.5, 1.0, 1.5, 2.0, 2.5, _____, _____, _____ 3.0, 3.5, 4.0 | 6. 100, 95, 90, 85, 80, _____, _____, _____ 75, 70, 65 |
| 7. -10, -7, -4, -1, 2, _____, _____, _____ 5, 8, 11 | 8. 3.2, 3.7, 4.2, 4.7, 5.2, _____, _____, _____ 5.7, 6.2, 6.7 |
| 9. 17, 14, 11, 8, 5, _____, _____, _____ 2, -1, -4 | 10. $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, _____, _____, _____ $1\frac{1}{2}$, $1\frac{3}{4}$, 2 |
| 11. 2, 5, 8, _____, 14, _____, _____, _____ 11, 17, 20, 23 | 12. 10, _____, 20, 25, 30, _____, _____, _____ 15, 35, 40, 45 |
| 13. 7, 12, _____, 22, 27, _____, _____, _____ 17, 32, 37, 42 | 14. -3, _____, 3, 6, 9, _____, _____, _____ 0, 12, 15, 18 |
| 15. 50, 45, _____, 35, 30, _____, _____, _____ 40, 25, 20, 15 | 16. 1.1, _____, 2.1, 2.6, 3.1, _____, _____, _____ 1.6, 3.6, 4.1, 4.6 |

17. ____, 18, 24, | 12, 42, 48, 54
 30, 36, ____,
 ____, ____

18. 100, 92, ____, | 84, 60, 52, 44
 76, 68, ____,
 ____, ____

19. -15, -11, ____, -3, | -7, 5, 9, 13
 1, ____, ____, ____

20. 0.8, 1.4, | 2.0, 3.8, 4.4, 5.0
 ____, 2.6,
 3.2, ____,
 ____, ____

21. 22, ____, 32, | 27, 47, 52, 57
 37, 42, ____,
 ____, ____

22. $\frac{3}{4}$, ____, $1\frac{1}{4}$, | 1, 2, $2\frac{1}{4}$, $2\frac{1}{2}$
 $1\frac{1}{2}$, $1\frac{3}{4}$, ____,
 ____, ____

23. 60, 55, ____, | 50, 35, 30, 25
 45, 40, ____,
 ____, ____

24. -20, -16, ____, -8, | -12, 0, 4, 8
 -4, ____, ____, ____

25. 2.5, ____, | 3.5, 7.5, 8.5, 9.5
 4.5, 5.5,
 6.5, ____,
 ____, ____

26. 17, ____, 27, | 22, 42, 47, 52
 32, 37, ____,
 ____, ____

27. 100, 94, ____, | 88, 70, 64, 58
 82, 76, ____,
 ____, ____

28. -8, -4, ____, 4, | 0, 12, 16, 20
 8, ____, ____, ____

29. 0.3, 0.7, | 1.1, 2.3, 2.7, 3.1
 ____, 1.5,
 1.9, ____,
 ____, ____

30. 45, 40, ____, | 35, 20, 15, 10
 30, 25, ____,
 ____, ____

MASTER QUESTIONS



M1. A theatre has seats arranged in rows where each row has 4 | 40 seats
 more seats than the previous row. If the first row has 12
 seats, how many seats are in the 8th row?

- M2.** A staircase has steps that increase in height by 2cm each step. If the first step is 15cm high, what is the height of the 10th step? | 33cm
- M3.** A savings account gains £5 more interest each month than the previous month. If the first month's interest was £20, what will be the total interest after 6 months? | £165
- M4.** A plant grows 3cm taller each week. If it was 25cm tall at the start of the experiment, how many weeks will it take to reach 46cm? | 7 weeks
- M5.** A train's speed increases by 8km/h every minute after departure. If it starts at 30km/h, what will its speed be after 5 minutes? | 70km/h
- M6.** A company's profits decrease by £2000 each quarter. If the profit was £50,000 in Q1, what will be the profit in Q4? | £44,000
- M7.** A temperature drops by 2°C every hour. If it's 18°C now, what will the temperature be in 6 hours? | 6°C
- M8.** A runner improves her time by 3 seconds each race. If her first race time was 65 seconds, what will her time be in the 7th race? | 47 seconds
- M9.** A building's floors are numbered with the ground floor as 0. Each floor above is 3m higher than the one below. How high is the 12th floor? | 36m
- M10.** A car's value depreciates by £1500 each year. If it was bought for £18,000, what will its value be after 5 years? | £10,500