## crack the code

## Arithmetic Sequences

| A | Find the next term in the sequence $2,6,10,14, \ldots$ | 18 | B | Find the next term in the sequence $4.5,6,7.5,9,10.5, \ldots$ | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C | Find the next term in the sequence $3,8,13,18, \ldots$ | 23 | D | Find the next term in the sequence $10,7,4,1, \ldots$ | -2 |
| E | What are the first three terms of the sequence with first term 8 and term-to-term rule "add 3"? | $\begin{gathered} 8 \\ 11 \\ 14 \end{gathered}$ | F | What are the first three terms of the sequence with first term 5 and term-to-term rule "subtract 2"? | $\begin{aligned} & 5 \\ & 3 \\ & 1 \end{aligned}$ |
| G | Find the $10^{\text {th }}$ term of the sequence with nth term $3 n-7$. | 23 | H | Find the $15^{\text {th }}$ term of the sequence with nth term $2 n+11$ | 41 |
| I | Find the $4^{\text {th }}$ term of the sequence with nth term $20-3 n$ | 8 | J | Find the $3^{\text {rd }}$ term of the sequence with nth term $-7 n-4$ | -25 |
| K | Find the nth term for this sequence: $1,4,7,10, \ldots$ | $\begin{aligned} & 3 n-2 \\ & (3,-2) \end{aligned}$ | L | Find the nth term for this sequence: $-7,-9,-11,-13, \ldots$ | $\begin{aligned} & -2 n-5 \\ & (-2,-5) \end{aligned}$ |
| M | Find the nth term for this sequence: $0,3,6,9, \ldots$ | $\begin{aligned} & 3 n-3 \\ & (3,-3) \end{aligned}$ | N | Find the nth term for this sequence: $21,24,27,30, \ldots$ | $\begin{gathered} 3 n+18 \\ (3,18) \end{gathered}$ |
| 0 | Find the nth term for this sequence: $1,9,17,25, \ldots$ | $\begin{aligned} & 8 n-7 \\ & (8,-7) \end{aligned}$ | P | Find the nth term for this sequence: $5,12,19,26, \ldots$ | $\begin{aligned} & 7 n-2 \\ & (7,-2) \end{aligned}$ |
| Q | Find the nth term for this sequence: $6,4,2,0, \ldots$ | $\begin{gathered} -2 n+8 \\ (-2,8) \end{gathered}$ | $\mathbf{R}$ | Find the nth term for this sequence: $13,7,1,-5, \ldots$ | $\begin{gathered} -6 n+19 \\ (-6,19) \end{gathered}$ |
| S | Find the nth term for this sequence: $16,13,10,7, \ldots$ | $\begin{gathered} -3 n+19 \\ (-3,19) \end{gathered}$ | T | Find the nth term for this sequence: $1,1.5,2,2.5, \ldots$ | $\begin{aligned} & 0.5 n+0.5 \\ & (0.5,0.5) \end{aligned}$ |

Add together all your answers to get the three-digit code.
(For $4 n-1$, add +4 and -1 ) 197

