

**CRACK THE CODE**

Use your calculator. Put each answer back in as the next value, keep every digit and round only at the end. Look your answer up in the **Code Box** and write the letter it unlocks in the white box. Collect all thirteen letters in the strip, then unscramble them to find the answer.

13
CLUES

1

$$x_{n+1} = \frac{x_n + 9}{4}$$

 $x_0 = 1$ **find x_3** to 3 d.p.

N

2

$$x_{n+1} = \sqrt{x_n + 6}$$

 $x_0 = 1$ **find x_2** to 3 d.p.

H

3

$$x_{n+1} = \sqrt[3]{2x_n + 5}$$

 $x_0 = 2$ **find x_2** to 3 d.p.

S

4

$$x_{n+1} = 3 - \frac{1}{x_n}$$

 $x_0 = 2$ **find x_3** to 3 d.p.

T

5

$$x_{n+1} = \frac{5}{x_n + 2}$$

 $x_0 = 1$ **find x_2** to 3 d.p.

W

6

$$x_{n+1} = \frac{x_n^3 + 4}{10}$$

 $x_0 = 0.5$ **find x_2** to 3 d.p.

I

7

$$x_{n+1} = \sqrt[3]{x_n^2 + 7}$$

 $x_0 = 2$ **find x_2** to 3 d.p.

G

8

$$x_{n+1} = \sqrt{10 - x_n}$$

 $x_0 = 3$ **find x_2** to 2 d.p.

L

9

$$x_{n+1} = 2 + \frac{3}{x_n}$$

 $x_0 = 2$ **find x_3** to 2 d.p.

B

10

$$x^3 - x - 20 = 0$$

 $x_{n+1} = \sqrt[3]{x_n + 20}, x_0 = 3$
find the root to 1 d.p.

F

11

$$x_{n+1} = \sqrt[3]{4 - x_n}$$

 $x_1 = 1.5$ **find x_3** to 3 d.p.

A

12

$$x_{n+1} = \frac{x_n^2 + 3}{5}$$

 $x_0 = 1$ **find x_3** to 3 d.p.

O

13

$$x^2 - 3x - 1 = 0$$

 $x_{n+1} = \sqrt{3x_n + 1}, x_0 = 3$
find the root to 2 d.p.

C

YOUR LETTERS

N H S T W I G L B F A O C

UNSCRAMBLE Clue: fun in the winter (8, 5)

SNOWBALL FIGHT

CODE BOX

0.407 = I

0.706 = O

1.357 = U

1.364 = W

1.383 = A

2.080 = K

2.092 = S

2.286 = G

2.600 = E

2.615 = T

2.70 = R

2.71 = L

2.714 = P

2.8 = F

2.875 = M

2.940 = H

2.969 = N

3.05 = B

3.30 = L

8.646 = Q

