

**CRACK THE CODE**

The symbol $\propto$ means "is proportional to". Write the formula with k , find k , then answer the question on the tile. Every value of x is positive. 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

$y \propto x$
 $y = 36$ when $x = 4$
Find k

I

2

$y \propto x$
 $y = 14$ when $x = 4$
Find y when $x = 10$

G

3

$y \propto x$
 $y = 21$ when $x = 6$
Find x when $y = 56$

T

4

$y \propto x^2$
 $y = 50$ when $x = 5$
Find y when $x = 3$

I

5

$y \propto x^2$
 $y = 12$ when $x = 2$
Find x when $y = 75$

B

6

$y \propto \frac{1}{x}$
 $y = 8$ when $x = 6$
Find k

U

7

$y \propto \frac{1}{x}$
 $y = 12$ when $x = 5$
Find y when $x = 15$

E

8

$y \propto \frac{1}{x}$
 $y = 9$ when $x = 4$
Find x when $y = 3$

G

9

$y \propto \sqrt{x}$
 $y = 15$ when $x = 9$
Find y when $x = 64$

I

10

$y \propto \sqrt{x}$
 $y = 6$ when $x = 4$
Find x when $y = 21$

R

11

$y \propto \frac{1}{x^2}$
 $y = 10$ when $x = 3$
Find y when $x = 5$

C

12

a stone falls d metres
 in t seconds
 $d \propto t^2$
 $d = 20$ when $t = 2$
Find d when $t = 3$

S

13

$y \propto \frac{1}{x^2}$
 $y = 5$ when $x = 4$
Find k

N

YOUR LETTERS

I G T I B U E G I R C S N

*GINGER BISCUIT***UNSCRAMBLE** Clue: goes with a cup of tea (6, 7)**CODE BOX**

3.6 = C

4 = E

5 = B

5.6 = U

6 = P

7 = D

9 = I

12 = G

16 = T

18 = I

20 = H

25 = M

30 = L

35 = G

36 = N

40 = I

45 = S

48 = U

49 = R

80 = N

