HEVERCASTLE
\& GARDENS

## KEY STAGE 2 MATHS TRAIL



## 1. MOAT RESTAURANT

Outside the Moat Restaurant you will see picnic tables for visitors to sit and have refreshments. Yesterday there were 14 adults and 6 children sitting here.
a. How many people were sitting at the tables?
b. After lunch, half of the adults went to visit the Castle. How many people were left?
c. Six new adults bought an ice cream and sat down to eat them. How many people are there now?
d. Two of the adults and all of the children went to the adventure playground. How many people were left at the picnic tables?

e. Three adults went and bought souvenirs in the Hever Shop. How many people are left?

## 2. HEVER SHOP



At the exit from the Hever Shop count how many people come out of the shop in ten minutes. If people come out at this rate all the time:
a. How many people will come out in one hour?
b. If the shop is open for seven hours each day, how many people will come out in one day?

## 3. INFORMATION CENTRE

a. From the Information Centre to the Castle estimate how many paces to walk this distance.
b. Now make your way towards the Castle and count how many paces you walked.
c. Was your estimate correct?


## 4. CASTLE GATEHOUSE

a. Have a look at the Castle gatehouse. What shapes can you see?
b. Draw three different shapes below.


## 5. CASTLE GATEHOUSE

In 1891 the Heard family rented the Castle from the Meade Waldo family. Edwin Heard lived here with his wife and four children. Here are the details of their ages:

| Edwin Heard | 72 years old |
| :--- | ---: |
| Jane Heard | 68 years old |
| Hetty Heard | 33 years old |
| Lizzie Heard | 31 years old |
| Lucy Heard | 29 years old |
| Harry Heard | 26 years old |

a. What is the total of the ages of all the family?
b. How many have ages which are even numbers?
c. What is the total of all the odd-numbered ages?

d. How old was Edwin Heard when Harry was born?
e. How much older is Hetty than Lucy?

## 6. YEW MAZE



The maze was created between 1904 and 1908 using 1000 yew trees.
a. How many years ago did they finish planting the maze?
b. If the maze had been made three times as big how many trees would they have needed?

## 7. GOLDEN STAIRS

Walk over the bridge opposite the Castle. Look at the Golden Stairs straight ahead.
The diagram below shows how steep the stairs are (not to scale).
Calculate the missing angle '?'
Clue: the angles of a triangle add up to 180 degrees.


## 8. HALF MOON POND

a. Half Moon Pond is half of what shape?
b. 'Half' can also be written as _/_, 0._ and __\%.


## 9. ITALIAN GARDENS

Look at Half Moon Pond with the curved edge in front and the hedge behind you, and walk through the left-hand set of golden gates into the Italian Gardens.
a. Look at the path as you walk towards the lake. What patterns can you see in the paving slabs? Are they symmetrical?
b. Draw your favourite pattern below.


## 10. LAKE

The lake was dug by hand in the early twentieth century. Eight hundred men spent two years working on the project.
a. If the lake took twice the amount of time and used twice the amount of men, how many years would the project take and how many men would they need?
b. Estimate the number of swans on the lake.
c. Estimate the number of ducks on the lake.

d. Add the two figures together. What is the approximate number of birds on the lake?


## ANSWERS

1 a) 20
b) 13
c) 19
d) 11
e) 8
4 a) Circle
Rectangle
Cross
Square
5a) 259
b) 3
c) 93
d) 46
6 a) 106
b) 3000
757
8 a) Circle
b) $1 / 2,0.5,50 \%$
10 a) 4 years 1600 men


