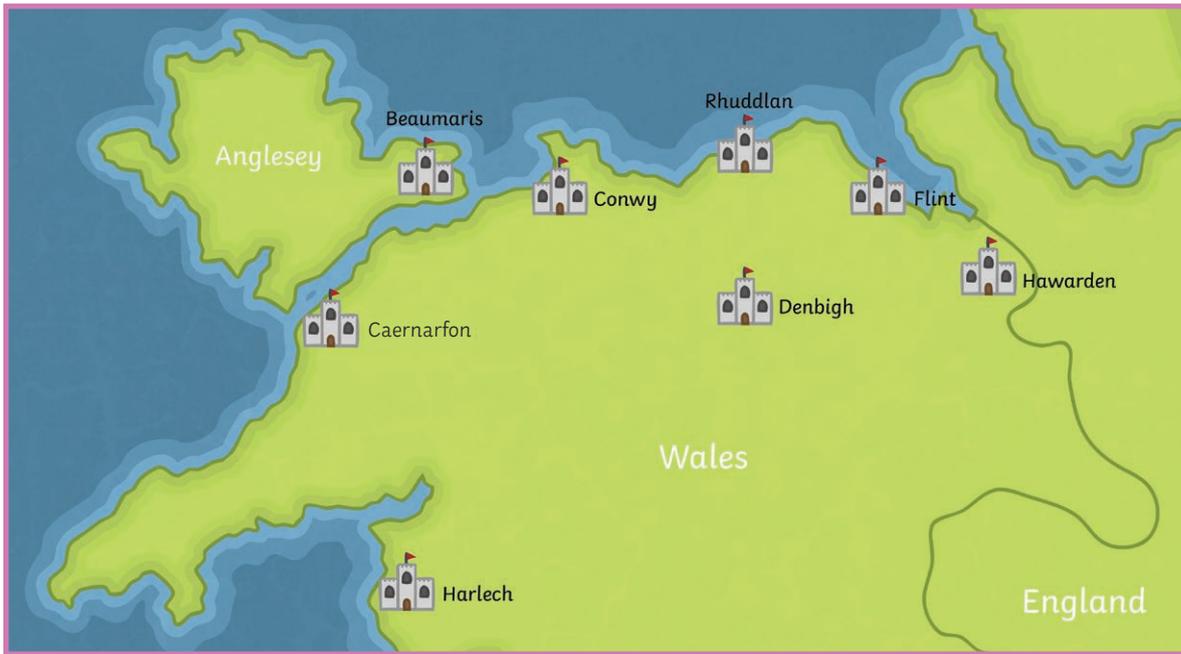


North Wales Castle Maths Easter Egg Hunt



The table below shows some information about the approximate distances between several castles located in North Wales. All distances have been given in kilometres.

Castle	Caernarfon	Harlech	Beaumaris	Conwy	Rhuddlan	Denbigh	Flint	Hawarden
Caernarfon	x	45	20.5	38.7	64.5	75.9	91.7	99.8
Harlech	45	x	64	40.6	88.1	68.2	115.3	105.4
Beaumaris	20.5	64	x	37.1	62.9	74.4	90.2	98.3
Conwy	38.7	40.6	37.1	x	27.3	38.1	57.5	61
Rhuddlan	64.5	88.1	62.9	27.3	x	14	30	37
Denbigh	75.9	68.2	74.4	38.1	14	x	38.1	42.9
Flint	91.7	115.3	90.2	57.5	30	38.1	x	12.6
Hawarden	99.8	105.4	98.3	61	37	42.9	12.6	x

Part 1.

Solve the following clues to calculate how many Easter eggs are hidden in each castle.

Castle	Clue	Number of hidden eggs
Caernarfon	The distance between Caernarfon and Harlech.	
Harlech	The product of the number of letters in the word Conwy and the total number of castles on the map.	

Beaumaris	The second shortest distance between any two of the castles.	
Conwy	The distance between Flint and Conwy to 1 significant figure.	
Rhuddlan	The difference between the distance of Caernarfon to Flint, and the distance of Caernarfon to Conwy.	
Denbigh	Round the longest distance between any two castles to the nearest whole number. Subtract 100 from the result.	
Flint	If $a = 1$, $b = 2$, $c = 3$, etc., find the value of the sum of the letters in Flint.	
Hawarden	The distance between Caernarfon and Conwy to 2 significant figures.	

Part 2.

You must now collect all the eggs from each castle. Starting at Caernarfon Castle, calculate the shortest distance for you to visit each castle and collect the eggs. You must show the route you took and your calculations. Your journey must also end at Caernarfon Castle.

Start (Caernarfon)



Part 3.

- What is the total number of Easter eggs that could be collected on the hunt if you found every one?
- Assuming you travelled at an average speed of 50km/h, calculate how long your journey took. Give your answer in hours.
- If you spent 30 minutes in each castle, how long did your Easter egg hunt last including travelling?
- If you started your hunt at 8am, what time will you finish? Give your answer using the 24-hour clock.