

Beatrice Tinsley. **New Zealand Mathematician.**

Beatrice Hill was born on 27th January, 1941 in Chester, England.

She was the middle of three sisters.

The family emigrated to New Zealand when she was 5 years old.

Her father became an Anglican curate and the family moved around a lot when she was young.

Primary schools which Beatrice attended were St. Margaret's College, Southbridge Primary School, and New Plymouth Central Primary School.

For High School she studied at New Plymouth Girls High School, where she was an outstanding student.



Beatrice's family called her by a nick-name. What was it?

1. (a) **Beetle**
(b) **Blondie**
(c) **B**
(d) **Babs.**

Beatrice Hill started at New Plymouth Girls High School when she was 13 years old.

She was an outstanding student and gained her form prize every year along with prizes in piano and violin.

In her last year at school she insisted on taking extra maths.

This was unusual at the time and few girls took the subject.



During which years was she at New Plymouth Girls High School?

2. (a) **1954-1957**
(b) **1955-1958**
(c) **1956-1959**
(d) **1957-1960.**

Beatrice studied a wide range of subjects at school. She enjoyed playing the violin and reached a very high standard. In her final year at New Plymouth Girls High School she was top of her class in both mathematics, Latin, English and Science. She was awarded Dux of the school.

What does Dux mean?

- 3.
- (a) Head Prefect of her school
 - (b) Top student at sport in her school.
 - (c) Best student in academic studies in her school.
 - (d) Best student at music at her school.



From New Plymouth, Beatrice won a scholarship to Canterbury University where she studied mathematics, chemistry and physics.

She graduated in 1961 with a B.Sc. First Class Honours.

During this year she married a fellow student, Brian, and took his name.

What was Brian's surname?

- 4.
- (a) Aitken
 - (b) Wilkins
 - (c) Bertler
 - (d) Tinsley.



Both Beatrice and her husband, Brian, set up house in central Christchurch after their marriage.

Beatrice earned money by teaching science at a very well-known school in Christchurch. Which school was this?



5. (a) Avonside Girls' High School
(b) Christchurch Girls' High School
(c) Riccarton High School
(d) Villa Maria College.

Beatrice completed her MSc in 1962. She got straight A's in her exams and won all the prizes available to her in that year.

She was not able to obtain a University job in New Zealand, so Brian and Beatrice decided to move to the United States of America.

Brian took up a research position at the University in Dallas and Beatrice studied for a PhD at the University in Austin.

Which State of the U.S.A. were they in?

6. (a) Texas
(b) California
(c) New York
(d) Maryland.



Beatrice completed her Ph.D. degree in 1966. In her final papers she received marks of 99% and 100% and was the first student in the University Department at Austin to achieve marks over 80%.

It was a remarkable achievement since she was commuting to Austin from her home in Dallas and Brian and Beatrice adopted a baby boy in that year.



What was the name of the boy?

In code it is Z K Z M Q N F D Q

7. (a) ALANBRIAN
(b) ALANPAUL
(c) ALANPETER
(d) ALANROGER.



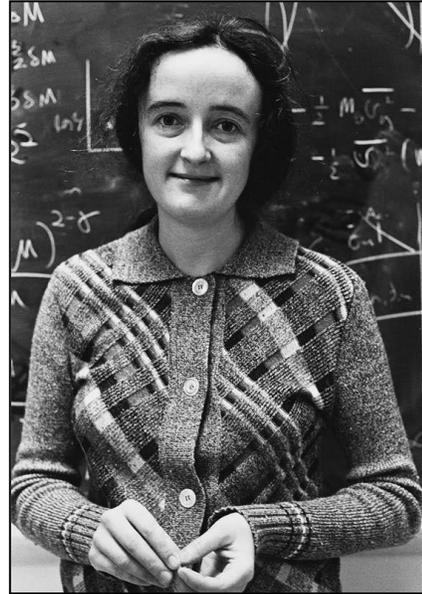
Beatrice decided the subject which interested her most was Cosmology. She could combine her knowledge of Physics and her outstanding ability in mathematics to study a subject which was then in its infancy. What is Cosmology?

8. (a) The study and application of beauty treatment.
(b) The study of large scale constructions.
(c) The study of the origin and evolution of the galaxies.
(d) The study of cocktails made with vodka.

In 1974 Beatrice was offered a prestigious professorship in Astronomy at the famous Yale University.

This is one of the top Universities in the world! Unfortunately her marriage faulted at this time and the couple divorced.

They shared custody with their now two children, Alan Roger and Teresa Jean.



Where is Yale University?

9. (a) New Haven, Connecticut, U.S.A.
(b) Cambridge, Massachusetts, U.S.A.
(c) Boston, Massachusetts, U.S.A.
(d) Princeton, New Jersey, U.S.A.



At Yale, Beatrice became a cosmologist whose work and research was recognized through-out the world.

Her work proving “our universe is continually expanding and will never collapse” is mind bending!

Who is the famous mathematician cosmologist who died in 2018 who expanded on Beatrice Tinsley’s work about the expanding galaxy ?

10. (a) Albert Einstein
(b) Stephen Hawking
(c) Aristotle
(d) Fred Hoyle.



Not long after Beatrice was promoted to full Professor at Yale University she discovered she had cancer.

In the three years that followed she continued working. Her “Evolution of the Stars in Galaxies” is regarded as a major study and received many citations.

Sadly, Beatrice died on 23 March, 1981.

There is a mountain in New Zealand named after her.

Where is this mountain?

11. (a) Egmont National Park, North Island.
(b) Arthur’s Pass National Park, South Island.
(c) Rakiura National Park, Stewart Island.
(d) Fiordland National Park, South Island.



Answers

1. a Beetle
2. a 1954-1957
3. c Best student in academic studies in her school
4. d Tinsley.
5. b Christchurch Girls' High School
6. a Texas
7. d ALANROGER.
8. c The study of the origin and evolution of the galaxies.
9. a New Haven, Connecticut, U.S.A.
10. b Stephen Hawking
11. d Fiordland National Park, South Island.