

Daily Dollar Questions 2017

Level 5

For Year 9, Year 10, Year 11 students.

Curriculum level 5.



What to do.

For students.

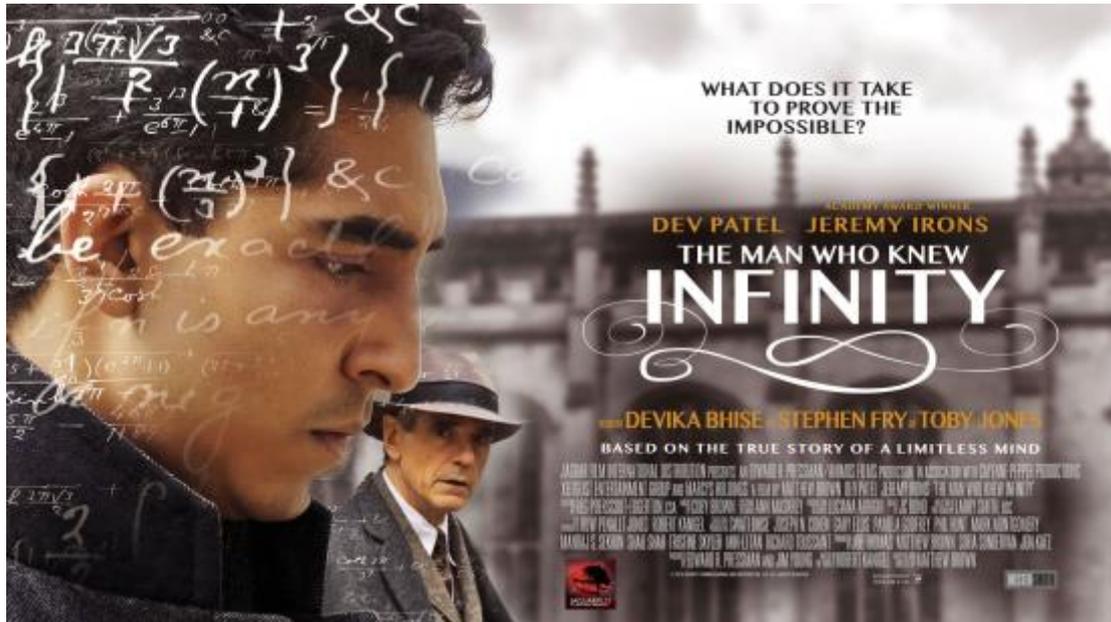
1. You may work in pairs or on your own and your teacher or parent can help you.
2. Do the questions.
3. If you are right you will get the dollar value for each question.
4. There are usually 5 questions each day.
5. Each day's questions total \$100 in value.
5. Your teacher will tell you the answers and then you can work out how many dollars you have earned for the day.
6. Add the dollars you have earned each day in the Daily Dollar Questions and get a total which you can compare at the end of the week with others in your class.
7. Perhaps your teacher may award a prize for the highest totals for the week!
8. Good luck !



2017

Thursday:

“The Man who knew Infinity” maths movie

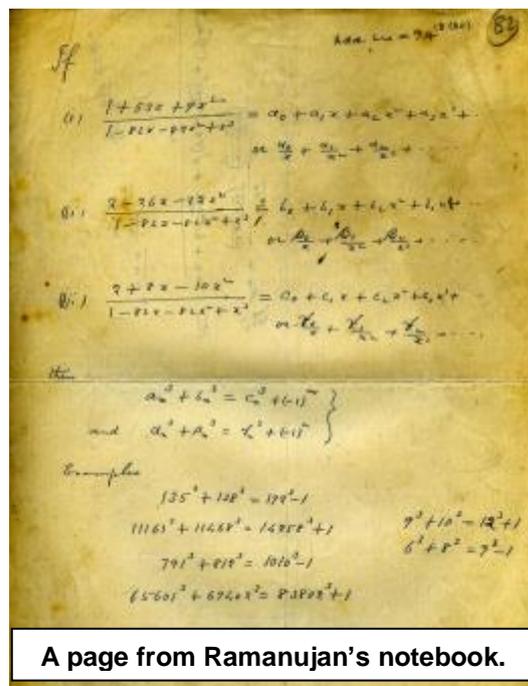


This movie is about Srinivasa Ramanujan 1887 – 1920 the famous Indian mathematician. He is regarded as one of the geniuses of the 20th century.

Ramanujan’s life was fascinating as told in the movie. For several years after leaving school he wandered around India working on his notebooks in which he wrote many mathematics formulae. He never wrote his working into his notebook. For many years readers couldn’t understand his formula!

Eventually he was given second-class tickets to travel to England and study at Oxford University with some of the great mathematicians of the day.

Ramanujan was a success at Oxford and with others he discovered formulae for finding Primes and for finding Partitions of large numbers.



A page from Ramanujan’s notebook.



There is a famous scene in the movie where fellow mathematician G.H. Hardy visits Ramanujan before he heads back to India.

Script of The Man who Knew Infinity.

Hardy “Sorry I'm late. Bloody cab driver got lost.
Should have known from his number.”

Ramanujan “And what was that?”

Hardy “Rather a dull one. 1729.”

Ramanujan “No, Hardy.
(CLEARS THROAT)
It is a very interesting number.
It is the smallest number expressible as the sum of two
cubes in two different ways.”
(CHUCKLES)

<https://www.youtube.com/watch?v=-n4y6uFdcOM>

Questions!

Find the values for A, B, C which make this equation possible.
Each answer is worth \$33.33.

$$B^3 + 9^3 = A = 12^3 + C^3$$