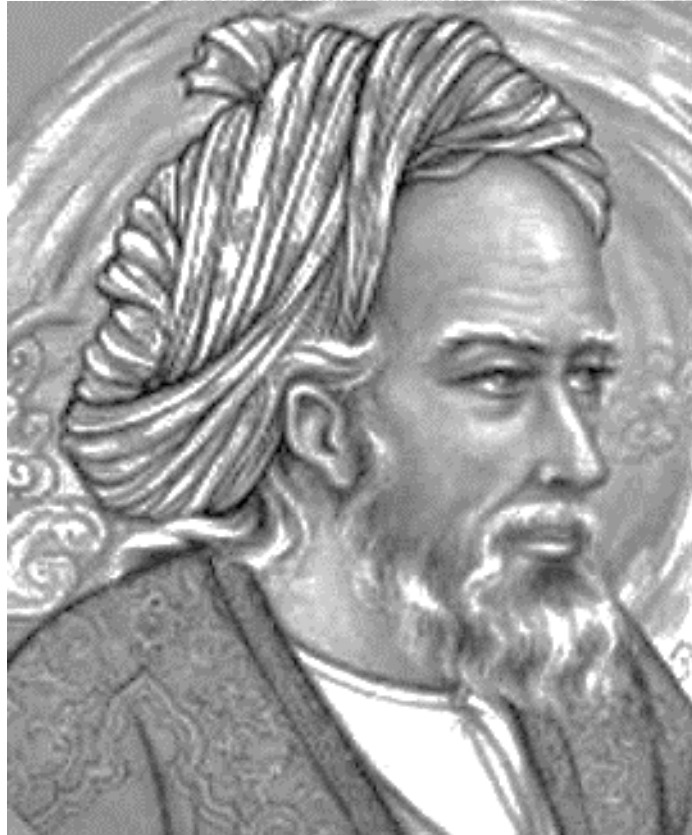# OMAR ALKHAYYAM (1048–1122)
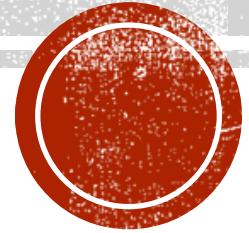
Done by:

Hala Ebrahim 20123333

Latifa Abdulla 20112998

Badreya Hamad 20120900

INTRODUCTION

- His name is Ghiyath al-Din Abul Fateh Omar Ibn Ibrahim al-Khayyam.

- He was poet, philosopher, physician, astronomer and at the same time a great mathematician.

- He was born in 1048 in Khorasan and died in 1122.

- He wrote many books such as:

1. *Risala Dar Wujud*.

2. *Nauruznamah*.

3. *Maqalat fi al-Jabr wa al-Muqabila*.

CONTRIBUTIONS

Measured the length of the year as 365.24219858156 days.

- It shows an incredible confidence to attempt to give the result to this degree of accuracy.

- It is outstandingly accurate. For comparison the length of the year at the end of the 19th century was 365.242196 days, while today it is 365.242190 days.
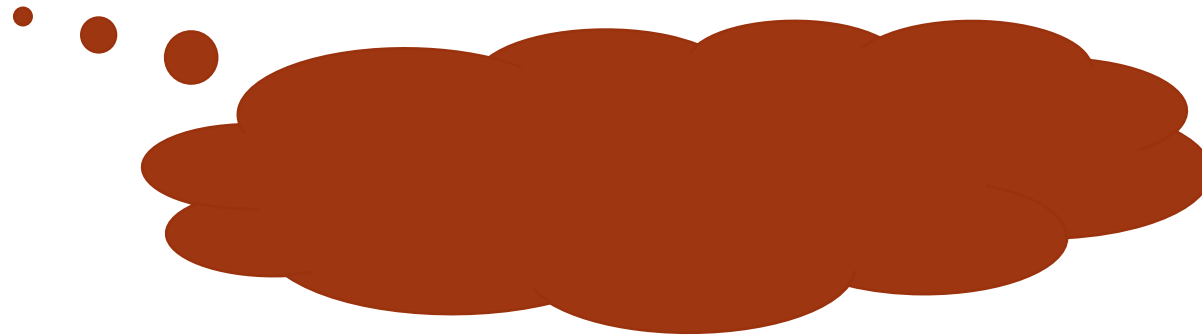
CONTRIBUTIONS

Find a right triangle having the property that the hypotenuse equals the sum of one leg plus the altitude on the hypotenuse .

- Solve the cubic equation $x^3 + 200x = 20x^2 + 2000$
- Found a positive root of this cubic
- Give a full description of the solution of cubic equations in a later work

CONTRIBUTIONS

- *Discusses the Pascal triangle.*

REFERENCES

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