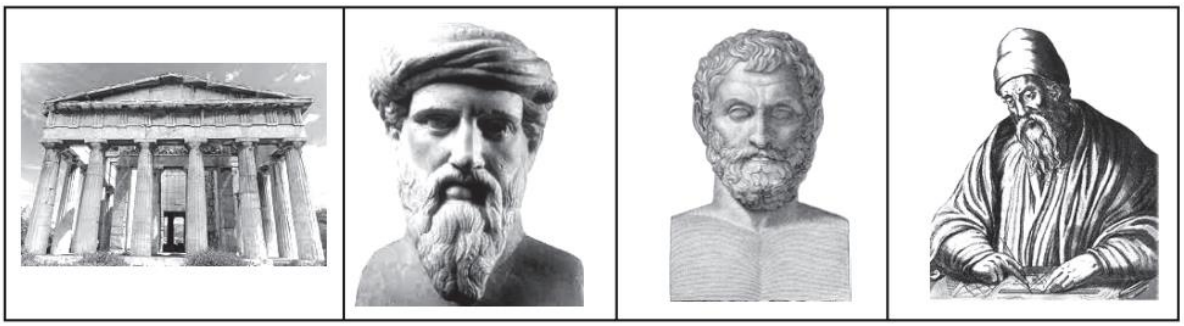
Introduction to Euclid's Geometry

Case Study Based Questions

Case Study 1

A National Public School organised an education trip to a museum. Almost all the students of class IX went to the trip with their teacher of Mathematics. They saw many pictures of mathematicians and read about their contributions in the field of Mathematics. After visiting the museum, teacher asked the following questions from the students.



On the basis of the above information, solve the following questions:

Q1. Pythagoras was a student of:

a. Euclid b. Thales

c. Archimedes d. Both a. and b.

Q2. Name of the mathematician who is visible in the last picture, is:

a. Euclid b. Pythagoras

c. Thales d. None of these

Q3. Euclid stated that 'A circle can be drawn with any centre and any radius, is a/an:

a. definition b. postulate

c. axiom d. proof

Q4. In which country Thales belong to?

a. Greece b. Egypt

c. Babylonia d. Rome

Q5. Which of the following needs a proof?

a. Definition b. Theorem

c. Axiom d. Postulate

Solutions

1. (b) Pythagoras was a student of Thales.

So, option (b) is correct.

2. (a) Euclid mathematician is visible in the last picture.

So, option (a) is correct.

3. (b) Euclid stated that 'A circle can be drawn with any centre and any radius' is postulate.

So, option (b) is correct.

4. (a) Thales belongs to Greece Country.

So, option (a) is correct.

5. (b) Theorem needs a proof.

So, option (b) is correct.

Case Study 2

In a class of Mathematics, the teacher taught a chapter 'Introduction to Euclid's Geometry' in which they taught about different postulates and axioms.

On the basis of the above information, solve the following questions:

Q1. How many axiom's are exist in Euclid's?

Q2. Write any one of the Euclid's postulate.

Q3. Write Euclid's axiom 5.

Q4. By which Euclid's axiom 'If x + y = 5, then x + y − z = 5 − -Z?

Solutions

1. There are seven Euclid's axioms exist.

2. One of the Euclid's postulate is 'All right angles are equal to one another'.

3. Euclid's axiom 5 is 'The whole is greater than the part'.

4. If x + y = 5, then x + y - z = 5 - z.