- 1) Aşağıdakilerin Türkçe okunuşlarını yazınız.
- a) Let G be a group with respect to addition.

G toplamaya göre bir grup olsun.

b) An isomorphism preserves the group operation between two groups.

Bir izomorfizma iki grup arasında grup işlemini korur.

c) If  $\phi$  is a homomorphism from G to G' that is onto,  $\phi$  is called an epimorphism.

Eğer  $\phi$ , G den G' ne örten bir homomorfizma ise  $\phi$  ye bir epimorfizma denir.

d) Every integer is either even or odd.

Her tamsayı ya çift ya da tektir.

e) A conic section can be described as the intersection of a plane and a right circular cone in space.

Bir konik kesiti uzayda bir düzlem ile bir dairesel dik koninin arakesiti olarak tarif edilebilir.

f) Every conic is symmetric about its axis.

Her konik eksenine gore simetriktir.

g) The points at which the conic intersects its axis are called the vertices of the conic.

Koniğin eksenini kestiği noktalara koniğin köşeleri denir.

- h) e denotes the eccentricity of the conic.
- e, koniğin dış merkezliğini belirtir.
- 1) A conic is called a hyperbola if e > 1.

Eğer e > 1 ise koniğe hiperbol denir.

2) Aşağıdaki boşlukları uygun kelimelerle doldurunuz.

central conics, point, bisector, vertex, equation, correspond, conic, parabola, isomorphic, equivalence, eccentricity

- a) If an isomorphism from G to G' exists, we say that G is **isomorphic** to G'.
- b) A symmetric, reflexive and transitive relation is called an **equivalence** relation.
- c) A homomorphism preserves the group operation. Hence, identities must correspond.
- d) Any conic section is the graph of a second degree **equation** in x and y.
- e) Since e=1, the conic is a parabola.
- f) Consider a line  $\ell$  on the plane and assume that P(x,y) is a **point** on the line.
- g) A point P(x,y) is on the **conic** if and only if |PF| = e|Pd|.
- h) A **bisector** divides an angle into two equal parts.

- 1) A vertex is an intersection point of the conic and its axis.
- i) Location of the vertices determined by the **eccentricity**.
- j) The ellipse and the hyperbola are called **central conics**.

**NOT :** Her şık 5 puan, süre 60 dakikadır. Başarılar dilerim.