Ime in Priimek:

Vpisna številka:

Smer:

1. Kolokvij iz Analize I – teorija

30. november 2018

1. **za MA+MEF**. Kako smo definirali urejene pare (a, b)? Zapiši tudi kdaj natanko je kartezični produkt $A \times B$ prazna množica in kdaj je $A \times B = B \times A$.
za slušatelje ostalih smeri. Zapiši osnovno lastnost urejenih parov (a, b). Zapiši tudi kdaj natanko je kartezični produkt $A \times B$ prazna množica in kdaj je $A \times B = B \times A$. (8 točk)

2. Kdaj je število z zgornja meja množice Ω? Kdaj pa je njen supremum? Kako preverimo, da je dano število a supremum ali ne? Kakšna pa je razlika med supremumom in maksimumom množice? (8 točk)

3. Kako smo definirali decimalni zapis realnega števila? Ali je enoličen? Kako pa definiramo binarni zapis? Ali je binarni zapis enoličen? (9 točk)

Name and family name:

Code:

Study programm:

1. Midterm exam Analysis I – theory

30. November 2018

1. **MA+MEF**. What is the definition of an ordered pair (a, b)? Write the conditions under which the cartesian product $A \times B$ is an empty set and under which $A \times B = B \times A$.
students of other program. Write the fundamental property of ordered pair (a, b). Write the conditions under which the cartesian product $A \times B$ is an empty set and under which $A \times B = B \times A$. (8 points)

2. When is the number z an upper bound of the set Ω? What is its supremum? How do we check that the number a is indeed a supremum? What is the difference between the suprema and maxima of the set. (8 points)

3. How did we define the decimal expansion of a real number? Is it unique? What about the binary expansion? Is a binary expansion unique? (9 points)