



mathematics

It is necessary to explain your answer

1. In the rectangle ABCD point M is the middle of BC side, point N is the middle of CD side, P is the point of DM and BN crossing. Prove that MAN angle is equal to BPM angle.
2. Prove that $1991 \cdot 1993 \cdot 1995 \cdot 1997 + 16$ is the square of natural number.
3. There are 2001 coins on the table. Two people are playing the following game: they go in turn, for the 1st go the first person can take any odd number of coins from 1 to 99, the second person can take any even number of coins from 2 to 100 and so on. Person who can't make a move loses. Who is going to win if they play correctly?

physics

It is necessary to explain your answer

Professor Gluck decided to illuminate the bottom of the deep well with sunlight. The angle of incidence of light at the moment is 56° . How for this purpose does professor need to arrange a flat mirror that light reflected from it has reached a bottom?

chemistry

It is necessary to explain your answer

A mixture of two metals, copper and zinc, weighing 25.8 g was treated with hydrochloric acid. At the same time, 4.48 liters of gas were released. Determine the mass fraction of metals in the mixture.

biology

It is necessary to explain your answer

Features of a skeleton peculiar only to the human:

- A) presence of a shoulder girdle;
- B) formation of the arch of foot;
- B) well developed superciliary arches;
- Г) chest expansion;
- Д) differentiation of teeth into incisors, canines, molars;
- E) predominance of the cerebral portion of the skull over the facial portion.