Basic Mathematics 1 (BMETETOPB22). **TEST 1. Geometry**. October 15, 2015. K. building 351/A. **60minutes. 25%**

1.The area of a rhombus is **24,** the length of a diagonal of this rhombus is **6.** Find the sides, the other diagonal of the rhombus. *(2*2=4%)*

2.The sum of interior angles of a regular polygon is **720°**, the length of side is **2**. Find for this polygon (i) the number of sides, (ii) the number and length of diagonals, (iii) the area of circumscribed and inscribed circles. Solve the same problem if the sum of angles is **400°**. *(6*1=6%)*

3. The circumference (perimeter) of a circle is 4π. Find the perimeter, the area of the sector, segment of this circle with angle **90°**. *(2*2,5=5%)*

4. The radius and the height of a cylinder are equal. The volume of the cylinder is 27π. Find (i) the surface area of the cylinder and (ii) the surface area of the circumscribed sphere of this cylinder. *(3+2=5%)*

5. A pyramid has equal edges. Its base is an equilateral triangle. The surface area of this pyramid is $4\sqrt{3}$. Find (i) the length of edges, (ii) the volume of the pyramid. *(2*2,5=5%)* *Good Luck!*