LESSON 1

CONCEPT (NAME)	EXPLANATION	MARKING
Conic sections	plane curves produced by an intersection of a plane and a right circular cone	
Ellipse... $\mathcal{E}$	the locus of a point in a plane in which sum of its distances from two fixed points (foci) is always a constant	$\|MF_1\| + \|MF_2\| = 2a$
major axis	the straight line passing through the center of the ellipse and both foci	$o_1 = AB$
minor axis	the straight line passing through the minor vertices and perpendicular to the major axis	$o_2 = CD$
focus (foci)	two fixed points in a plane that lie on the major axis and are equidistant from the center	F_1, F_2
major vertices	the meeting points of the major axis with the ellipse	A, B
minor vertices	the meeting points of the minor axis with the ellipse	C, D
osculating circles	replace the curvature of the ellipse in its vertices	
tangent to an ellipse	the straight line outside of the ellipse that touches it at just one point	t
focal radius (radii)	the straight line connecting any point M on the ellipse with the focus	MF_1, MF_2
directrix circle	the set of all points axially symmetrical to one focus according to the tangents of the ellipse with the center at the other focus and with a radius equal to the length of the major axis	$d_1(F_1; 2a)$, $d_2(F_2; 2a)$
vertex circle	a geometric locus of the feet of the perpendiculars to the tangents of the ellipse passing through the focus	$v(S; a)$