TEST

1. Quyidagi nuqtalarga (Ox) o‘qqa nisbatan simmetrik bo‘lgan nuqtalarning koordinatalarini toping $(w=\vec{e}_1,\vec{e}_2=30^\circ)$:

   a) $A(2,3)$ *b)* $B(-3,2)$ *c)* $C(-1,1)$ *d)* $D(-2,5)$ *e)* $E(-4,6)$

2. Quyidagi nuqtalarga Oy o‘qqa nisbatan simmetrik bo‘lgan nuqtalarning koordinatalarini toping $(w=\vec{e}_1,\vec{e}_2=30^\circ)$:

   a) $A(3,3)$ *b)* $B(-2,-4)$ *c)* $C(2,-1)$ *d)* $D(5,-4)$ *e)* $E(-1,1)$

3. Quyidagi nuqtalarga koordinatalar boshiga nisbatan simmetrik bo‘lgan nuqtalarning koordinatalarini toping :

   a) $A(-1,2)$ *b)* $B(3,-1)$ *c)* $C(-2,2)$ *d)* $D(-2,5)$ *e)* $E(-3,-5)$

4. Quyida berilgan shartlarga asoslanib, $M(x,y)$ nuqta koordinatalar sistemasining qaysi choragida yotishi mumkinligini ayting.

   a) $xy>0$ *b)* $xy<0$ *c)* $xy=0$ *d)* $x-y=0$

5. Quyidagi Vektorlarning boshlari $M(-1,2)$ nuqtada bo‘lsa, ular oxirlarining koordinatalarini toping:

   1) $\vec{a}_1(3,0)$ 2) $\vec{a}_2(-5,3)$ 3) $\vec{a}_3(3,-2)$ 4) $\vec{a}_4(-1,-2)$

6. Parallelogrammning uchta A,B,C uchining koordinatalari bo‘yicha to‘rtinchi uchining koordinatalarini toping:

   a) $A(1,4),\ B(3,-1),\ C(0,2)$

   b) $A(-1,0),\ B(2,1),\ C(4,-1)$

7. Quyidagi uchta A,B,C nuqtaning bir to‘g’ri chiziqda yotishini ko‘rsating:

   a) $A(2,1),\ B(0,5),\ C(4,-3)$

   b) $A(-1,0),\ B(1,-2),\ C(3,-4)$

   1. M nuqta biror koordinatalar sistemasiga nisbatan $x=-6, y=3$ koordinatalarga ega. Koordinatalar boshi ushbu:

      a) $O_1(-3,0)$ *b)* $O_2(-4,3)$ *c)* $O_3(5,-8)$

   nuqtalardan biriga ko‘chirilsa, shu nuqtaning koordinatalari qanday bo‘ladi?

   2. Quyidagi hollar uchun $\beta=\{O,\vec{e}_1,\vec{e}_2\}$ affin reperdan $\beta'=\{O',\vec{e}_1',\vec{e}_2'\}$ affin reperga o‘tish formulalarini yozing:

      a) $\vec{e}_1'(2,1),\vec{e}_2'(-2,1)$ *b)* $\vec{e}_1'(1,1),\vec{e}_2'(0,1)$

      c) $\vec{e}_1'(1,0),\vec{e}_2'(1,1)$ *d)* $\vec{e}_1'(1,0),\vec{e}_2'(0,1)$

   3. Quyidagi berilganlarga asosan $\beta=\{O,\vec{e}_1,\vec{e}_2\}$ affin reperdan $\beta'=\{O',\vec{e}_1',\vec{e}_2'\}$ affin reperga o‘tish formulalarini yozing:

      a) $\vec{e}_1'(-3,0),\vec{e}_2'(1,2),O'(-3,5)$

b) $\overrightarrow{e_1'}(1,0), \overrightarrow{e_2'}(0,1), O'(2,0)$

c) $\overrightarrow{e_1'}(1,1), \overrightarrow{e_2'}(1,0), O'(0,-5)$

4. $\beta = \{O, \vec{i}, \vec{j}\}$ dekart reper berilgan. Koordinatalar o‘qini quyidagi burchaklardan biriga burishdagi koordinatalarni almashtirish formulalarini yozing:

a) 30° *b)* 45° *c)* 120° *d)* -60° *e)* 75°

5. $\vec{a} = \{-3,-2,6\}$ va $\vec{b} = \{-2,1,10\}$ vektorlar berilgan. Quyidagi vektorlarning koordinatalarini toping:

a) $2\vec{a} - \frac{1}{3}\vec{b}$ b) $\vec{a} + \vec{b}$ c) $4\vec{a} - 3\vec{b}$ d) $\frac{1}{3}\vec{a} + 3\vec{b}$ e) $\frac{5}{12}\vec{a} - \frac{2}{5}\vec{b}$