

Задача 2.7. Даны координаты вершин пирамиды $ABCD$.

Найти:

- 1) внутренний угол A треугольника ABC ;
- 2) площадь треугольника ABC ;
- 3) объем пирамиды $ABCD$;
- 4) длину высоты, опущенной из вершины D пирамиды $ABCD$.

Вариант				
1	A (1, 2, 1)	B (-1, 2, 4)	C (2, 0, 6)	D (-2, 5, -1)
2	A (0, 1, 2)	B (2, 3, -4)	C (-1, 2, 5)	D (-3, 1, -1)
3	A (0, 2, 3)	B (3, 1, 2)	C (1, 3, -1)	D (4, -1, -3)
4	A (1, 0, 3)	B (6, -5, 2)	C (0, 2, 3)	D (6, 5, 1)
5	A (1, 1, 0)	B (3, 2, -5)	C (3, 3, -2)	D (5, 3, -2)
6	A (6, 0, 4)	B (0, 6, 4)	C (4, 6, 0)	D (0, -6, 4)
7	A (3, 2, 4)	B (2, 4, 3)	C (4, 3, -1)	D (4, -2, 3)
8	A (6, -3, 5)	B (5, -6, 3)	C (9, -1, 6)	D (5, -1, 2)
9	A (1, -1, 6)	B (4, 5, -2)	C (-1, 3, 0)	D (1, 2, 5)
10	A (4, 2, 2)	B (3, 0, 4)	C (0, 2, 3)	D (5, -2, -4)
11	A (-2, 3, 2)	B (-3, 0, 4)	C (0, 2 , 3)	D (1, 2, -4)
12	A (4, 2, -1)	B (3, 0, 4)	C (1, 2, 1)	D (2, 8, 4)
13	A (1, 2, 3)	B (-1, 2, -3)	C (-2, 3, 1)	D (7, 5, 9)
14	A (3, 5, 4)	B (8, 7, 4)	C (5, 10, 3)	D (4, 7, 8)
15	A (2, -8, -1)	B (4, -6, 0)	C (-2, -5, -1)	D (7, -10, 3)
16	A (4, 6, 5)	B (6, 9, 4)	C (7, 5, 9)	D (4, 10, 9)
17	A (6, 6, 5)	B (4, 9, 5)	C (4, 6, 11)	D (5, 9, 3)
18	A (8, 6, 4)	B (10, 5, 5)	C (5, 6, 8)	D (8, 10, -7)
19	A (7, 2, 2)	B (5, 7, 7)	C (5, 3, 1)	D (2, 3, 7)
20	A (7, 7, 3)	B (6, 5, 8)	C (3, 6, 7)	D (8, 4, 1)
21	A (4, 0, 0)	B (-2, 1, 2)	C (1, 3, 2)	D (3, 2, 7)

22	A (-2, 1,2)	B (4, 0, 1)	C (3, 2, -3)	D (1, 3, 2)
23	A (1, 3, 2)	B (3, 2, 7)	C (4, 0, 1)	D (-2, 1, -2)
24	A (3, 2, 7)	B (1, 3, 2)	C (-2, 1, 3)	D (4, -2, 3)
25	A (3, 1, -2)	B (1, -2, 1)	C (-2, 1, 0)	D (2, 2, 5)
26	A (1, -2, 1)	B (3, 1, -2)	C (2, 2, 5)	D (-2, 1, 0)
27	A (-3, 2, 1)	B (-2, 1, 0)	C (1, -2, 1)	D (3, 1, 2)
28	A (3, 1, -2)	B (1, -2, 1)	C (-2, 1, 2)	D (-2, 1, 0)
29	A (-3, 1, 2)	B (-2, 1, 1)	C (1, -2, 3)	D (3, 2, 1)
30	A (2, -1, 1)	B (-2, 2, 5)	C (3, 2, 1)	D (1, 2, -1)