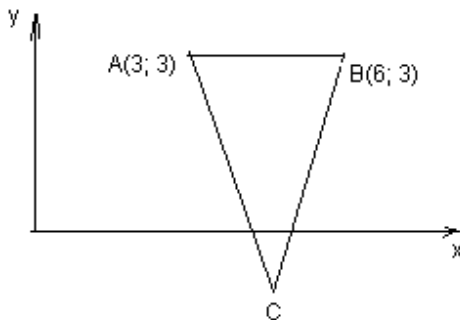


1. There are 17 spheres/balls marked from 1 to 17 in the box. What is the smallest number of spheres/balls you have to pull out in order to be sure that there will be at least 2 spheres/balls which sum of the numbers would be equal 18? (2)

2. Lithuanian writer Antanas Baranauskas (1835-1902) has thought up the following problem: (4)
„How many bulls, cows and calves can you buy paying 10 litas per bull, 5 litas per cow, and half a litas per calf, in order to spend 100 litas and buy 100 cattle?“. Solve the problem.

3. Number a equals $2007^{2008} + 2008^{2009}$. What is the last numeral of the number a ? (3)

4. The picture shows an isosceles triangle ABC. The co-ordinates of point A are (3; 3), point B – (6; 3), and point C is below axis x . (3)
a) The area of the triangle ABC is 6 square area units. Find the co-ordinates of point C. (3)
b) Write down the equations of straight lines AB and CB. (4)



5. Vectors \vec{a} and \vec{b} are not colinear. Find x with which vectors $\vec{c} = (x-2)\vec{a} + \vec{b}$ and $\vec{d} = (2x+1)\vec{a} - \vec{b}$ are colinear. (4)