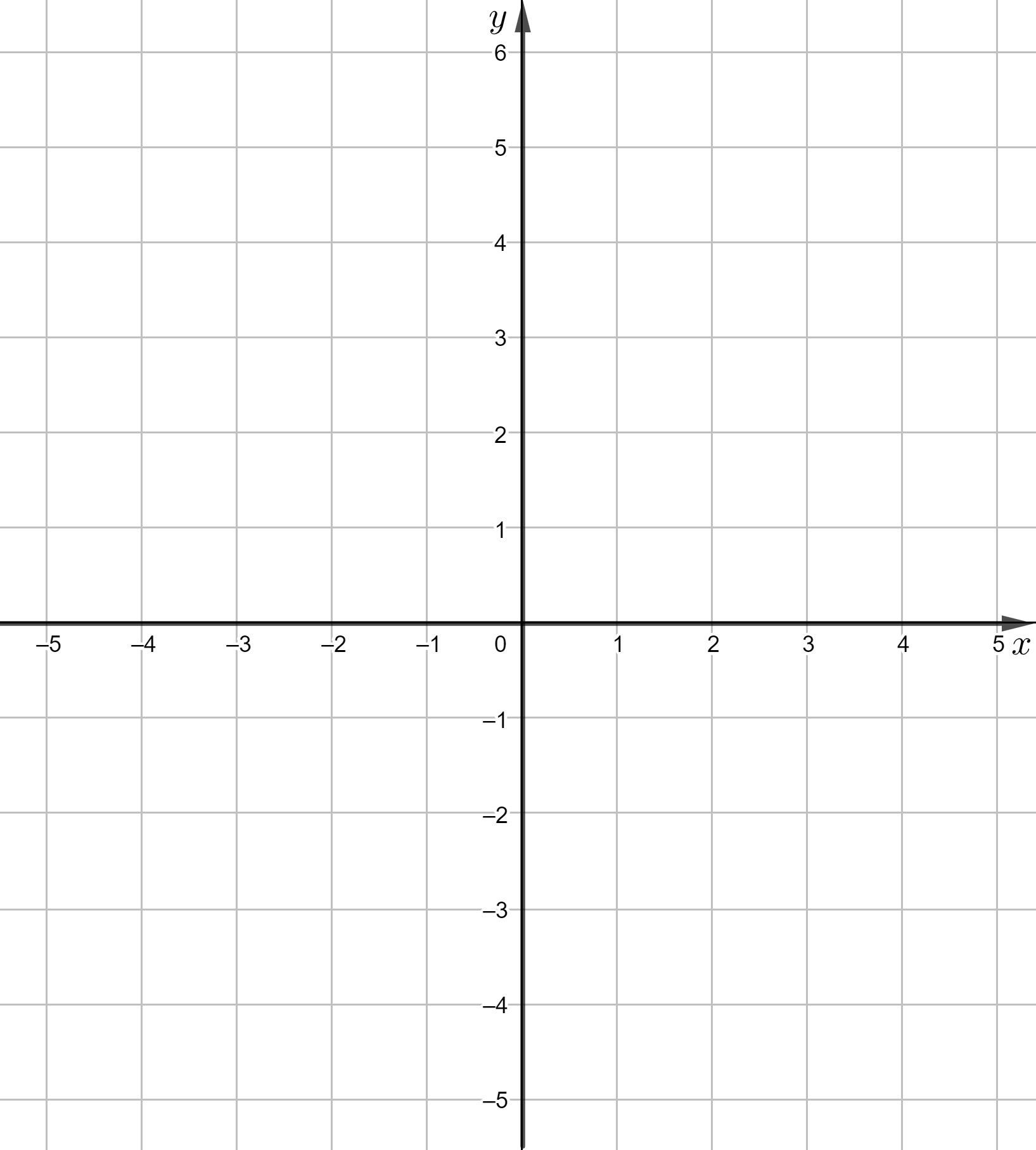
**Task 1**. A quadratic function is defined by vertex form .

1. Write down coordinates of the vertex of parabola which is the graph of the . ……………
2. Write down coordinates of the point , where the graph of intersects the y-axis. ……………
3.  Sketch the graph of .
4. Write down the equation of the line of symmetry of the graph of . ……
5. Write down the range of the function .   
   …………..
6. Describe monotonicity intervals of the function .

The function increases in the interval ………………

The function increases in the interval

……………….

1. Write down the general form of the function

………………..

**Task 2**. Calculate coefficients i in the formula of a quadratic function  ,   
knowing that the points and lie on the graph of this function.

**Task 3**. Work out the vertex form for the quadratic function , knowing that the interval  is the range of and .