

## Sample task 2 – Machine planning

### Problem

Five products  $a, b, c, d, e$  has to be processed on two machines  $M_1$  and  $M_2$ . The processing time for each product on each machine is given. It is important that each product is first processed on machine  $M_1$  and then on machine  $M_2$ . As an example, we consider the production of a chocolate bar: on machine  $M_1$  the melted chocolate is deposited into bars and on machine  $M_2$  the chocolate bars are packed.

For which order of the products the total processing time – the interval between the time when the first product starts on machine  $M_1$  and the time when the last products leaves machine  $M_2$  – is the shortest? Describe your ideas and strategies!

	a	b	c	d	e
$M_1$	3	4	8	10	7
$M_2$	2	6	5	7	12

