



Takt Time Calculation

A sofa factory works 5 days a week from 8:30 to 16:30 with a 30 minutes break for lunch. 90 sofas have to be produced in a week. What is the Takt Time for the sofa factory?

Exercise Solution

Available Time

8 hours - 30 min (break) = 480 min – 30 min (break) = 450 min a day * 5 days = 2250 min

Customer's request = 90 sofas

Takt-Time is = $2250 / 90 = 25 \text{ min} = 1500 \text{ sec}$

In other words the factory has to produce 1 sofa every 25 minutes (or 1500 sec) to deliver to the customer on time.

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-001



Takt Time Calculation

A Personal Computer factory works 5 days a week from 8:30 to 16:30 with a 30 minutes break for lunch. 180 Personal Computers have to be produced in a week. What is the Takt Time for the Personal Computer factory?

Exercise Solution

Available Time

8 hours - 30 min (break) = 480 min – 30 min (break) = 450 min a day * 5 days = 2250 min

Customer's request = 180 Personal Computers

Takt-Time is = $2250 / 180 = 12,5 \text{ min} = 750 \text{ sec}$

In other words the factory has to produce 1 Personal Computer every 12,5 minutes (or 750 sec) to deliver to the customer on time.

This exercises suggest to express the Takt Time in seconds rather than minutes to avoid decimals.

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-002



Takt Time Calculation

A company of pens works 5 days a week with 2 shifts a day. Every shift is of 360 minutes. The break for lunch is 45 minutes. In the period of 10 weeks the customer's request is 1795 pens. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 315 minutes

Shifts / Day * 5 * Weeks: 100 shifts

Available Time: 31500 minutes = 1890000 seconds

Customer Request: 1795 pens

Takt Time: 17,55 minutes = 1053 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-003



Takt Time Calculation

A company of books works 5 days a week with 1 shift a day. Every shift is of 360 minutes. The break for lunch is 60 minutes. In the period of 12 weeks the customer's request is 9484 books. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 300 minutes

Shifts / Day * 5 * Weeks: 60 shifts

Available Time: 18000 minutes = 1080000 seconds

Customer Request: 9484 books

Takt Time: 1,9 minutes = 114 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-004



Takt Time Calculation

A company of doors works 5 days a week with 3 shifts a day. Every shift is of 420 minutes. The break for lunch is 60 minutes. In the period of 13 weeks the customer's request is 629 doors. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 360 minutes

Shifts / Day * 5 * Weeks: 195 shifts

Available Time: 70200 minutes = 4212000 seconds

Customer Request: 629 doors

Takt Time: 111,61 minutes = 6696 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-005



Takt Time Calculation

A company of shoes works 5 days a week with 1 shift a day. Every shift is of 420 minutes. The break for lunch is 60 minutes. In the period of 4 weeks the customer's request is 490 shoes. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 360 minutes

Shifts / Day * 5 * Weeks: 20 shifts

Available Time: 7200 minutes = 432000 seconds

Customer Request: 490 shoes

Takt Time: 14,69 minutes = 882 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-006



Takt Time Calculation

A company of televisions works 5 days a week with 3 shifts a day. Every shift is of 480 minutes. The break for lunch is 30 minutes. In the period of 9 weeks the customer's request is 4388 televisions. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 450 minutes

Shifts / Day * 5 * Weeks: 135 shifts

Available Time: 60750 minutes = 3645000 seconds

Customer Request: 4388 televisions

Takt Time: 13,84 minutes = 831 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-007



Takt Time Calculation

A company of bulbs works 5 days a week with 2 shifts a day. Every shift is of 480 minutes. The break for lunch is 45 minutes. In the period of 7 weeks the customer's request is 2900 bulbs. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 435 minutes

Shifts / Day * 5 * Weeks: 70 shifts

Available Time: 30450 minutes = 1827000 seconds

Customer Request: 2900 bulbs

Takt Time: 10,5 minutes = 630 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-008



Takt Time Calculation

A company of televisions works 5 days a week with 3 shifts a day. Every shift is of 360 minutes. The break for lunch is 45 minutes. In the period of 3 weeks the customer's request is 1764 televisions. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 315 minutes

Shifts / Day * 5 * Weeks: 45 shifts

Available Time: 14175 minutes = 850500 seconds

Customer Request: 1764 televisions

Takt Time: 8,04 minutes = 482 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-009



Takt Time Calculation

A company of engines works 5 days a week with 3 shifts a day. Every shift is of 480 minutes. The break for lunch is 30 minutes. In the period of 13 weeks the customer's request is 4768 engines. Calculate the Takt Time in the period.

Exercise Solution

Net Time per shift: 450 minutes

Shifts / Day * 5 * Weeks: 195 shifts

Available Time: 87750 minutes = 5265000 seconds

Customer Request: 4768 engines

Takt Time: 18,4 minutes = 1104 seconds

Try to simulate Takt Time Calculation on www.leanlab.info

Exercise Code: TT-010