**Absorption costing**

**1. Calculation** *(26 points)*

1.1 Use the Cost Allocation Sheet (CAS) below to determine the cost rates for the manufacturing departments as well as the overhead allocation rates for the other departments (13 points).

Please note:

* Stock of finished goods increased in the amount of 2.840 TEUR.
* The service department works with 55% for the stamping department, with 40% for the surface treatment department and with 5% for the material department.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CAS** |  |  |  |  |  |  |  |  |  |  |
|  | unit |  | | operating departments | | | | | | total |
|  |  | build. | serv.  dep. manufact. | material | stam-ping | surface treatment | development | sales | administration |  |
| direct material | TEUR |  |  | 9.500 |  |  |  |  |  |  |
| Tusage | T h |  |  |  | 45 | 67 |  |  |  |  |
| primary costs | TEUR | 561 | 812 | 2.000 | 5.000 | 3.500 | 500 | 1.500 | 300 | **14.173** |
| allocation  building departm. |  |  | 100 | 250 | 1.000 | 1.200 | 130 | 150 | 180 | **3.010** |
| qm |  | 19 | 47 | 186 | 224 | 24 | 28 | 34 | **561** |
|  | % |  |  |  |  |  |  |  |  |  |
| alloc.serv.dep. | TEUR |  |  |  |  |  |  |  |  |  |
| **total** | **TEUR** |  |  |  |  |  |  |  |  |  |
| **cost rates** | **EUR/h** |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **overhead allo-**  **cation rates** | **%** |  |  |  |  |  |  |  |  |  |

solution:



1.2 Please calculate the unit costs for a manufacturing order that encompasses 450 units.

Use the following information:

* direct material costs per unit 140 EUR
* total duration of manufacturing per unit 42 min
* duration of assembly per unit 11 min
* order – specific tool costs 76.000 EUR
* transport costs per 50 pieces 620 EUR
* profit mark-up (based on full costs) 25%

The in-house computer-system delivers the following information:

* material overhead allocation cost rate 28%
* cost rate manufacturing 142 EUR/h
* cost rate assembly 57 EUR/h
* development/sales/administration - OAR 39%

Determine manufacturing costs, full costs and the calculated sales price for one unit using the department based cost allocation. (6,5 points)



1.3 A winegrower (vintner) produces the following variants of wine.

wine sales

* White wine (W) 13.000
* Red wine (Re) 18.000
* Rosé (Ro) 16.000
* Sparkling (S) 25.000

Sales and administration of wine W is 50% less costly and wine Re is 25% less costly than for wine S. Furthermore, the cost of sales and administration of wine Ro is 30% more costly than for wine S. Total costs of sales and administration are 150.000 EUR.

The effort for filling and production of the 70.000 bottles is the same for the different   
 variants of wine. In total costs are 210.000 EUR. Calculate the unit costs for each variant   
 W, Re, Ro and S. (6,5 points)

Solution:

