### **Chapter 9 Homework**

E9.3 (LO [2](https://jigsaw.vitalsource.com/books/9781119390459/epub/OPS/c09.xhtml?favre=brett#c09-sec-0014)), AP Thome and Crede, CPAs, are preparing their service revenue (sales) budget for the coming year (2020). The practice is divided into three departments: auditing, tax, and consulting. Billable hours for each department, by quarter, are provided below.

*Prepare a sales budget for 4 quarters*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
| Auditing | 2,300 | 1,600 | 2,000 | 2,400 |
| Tax | 3,000 | 2,200 | 2,000 | 2,500 |
| Consulting | 1,500 | 1,500 | 1,500 | 1,500 |

Average hourly billing rates are auditing $80, tax $90, and consulting $110.

#### **Instructions**

Prepare the service revenue (sales) budget for 2020 by listing the departments and showing for each quarter and the year in total, billable hours, billable rate, and total revenue.

\*Normally each Quarter would go next to one another but I cannot get the formatting to cooperate at the moment.

|  |  |
| --- | --- |
|  | Quarter 1 |
| Department | Hour\* Rate = Total Revenue |
| Auditing | 2300 \* 80 = 184,000 |
| Tax | 3000\*90= 270,000 |
| Consulting | 1500\*110= 165,000 |
| Total | 6800 (hours) $619,000 |

|  |  |
| --- | --- |
|  | Quarter 2 |
| Department | Hour\* Rate = Total Revenue |
| Auditing | 1600 \* 80 = 128,000 |
| Tax | 2200\*90=198,000 |
| Consulting | 1500\*110 = 165,000 |
| Total | 5300 Hours $491,000 |

|  |  |
| --- | --- |
|  | Quarter 3 |
| Department |  |
| Auditing | 2000\*80=160,000 |
| Tax | 2000\*90=180,000 |
| Consulting | 1500\*110=165,000 |
| Total | 5500 Hours $505,000 |

|  |  |
| --- | --- |
|  | Quarter 4 |
| Department |  |
| Auditing | 2400\*80=192,000 |
| Tax | 2500\*90=225,000 |
| Consulting | 1500\*110=165,000 |
| Total | 6400 Hours $582,000 |

|  |  |
| --- | --- |
|  | Year |
| Department |  |
| Auditing | 8300\*80= 664,000 |
| Tax | 9700\*90=873,000 |
| Consulting | 6000\*110=660,000 |
| Total | 24,000 Hours $2,197,000 |

9.15 (LO [4](https://jigsaw.vitalsource.com/books/9781119390459/epub/OPS/c09.xhtml?favre=brett#c09-sec-0027)), AP Deitz Corporation is projecting a cash balance of $30,000 in its December 31, 2019, balance sheet. Deitz’s schedule of expected collections from customers for the first quarter of 2020 shows total collections of $185,000. The schedule of expected payments for direct materials for the first quarter of 2020 shows total payments of $43,000. Other information gathered for the first quarter of 2020 is sale of equipment $3,000, direct labor $70,000, manufacturing overhead $35,000, selling and administrative expenses $45,000, and purchase of securities $14,000. Deitz wants to maintain a balance of at least $25,000 cash at the end of each quarter.

*Prepare a cash budget.*.

|  |  |
| --- | --- |
|  | 1st Quarter |
| Beginning Cash Balance | 30,000 |
| Cash Receipt: |  |
| Add: Collection from Customers | 185,000 |
| Sale of Equipment | 3,000 |
| Total Cash Available | 218,000 |
| Cash Payment: |  |
| Payment for DM | 43,000 |
| Direct Labor | 70,000 |
| Manufacturing Overhead | 35,000 |
| Selling and administrative expenses | 45,000 |
| Purchase of securities | 14,000 |
| Total Cash Payment | 207,000 |
| Cash Surplus (Deficit) | 11,000 |
| Add: Borrowings | 14,000 |
| Minimum balance at end | 25,000 |

### **Chapter 10**

E10.7 (LO [2](https://jigsaw.vitalsource.com/books/9781119390459/epub/OPS/c10.xhtml?favre=brett#c10-feafxd-2002)), AP Appliance Possible Inc. (AP) is a manufacturer of toaster ovens. To improve control over operations, the president of AP wants to begin using a flexible budgeting system, rather than use only the current master budget. The following data are available for AP’s expected costs at production levels of 90,000, 100,000, and 110,000 units.

*Prepare flexible budget report*.

|  |  |
| --- | --- |
| Variable costs |  |
| Manufacturing | $6 per unit |
| Administrative | $4 per unit |
| Selling | $3 per unit |
| Fixed costs |  |
| Manufacturing | $160,000 |
| Administrative | $ 80,000 |

### **Instructions**

* Prepare a flexible budget for each of the possible production levels: 90,000, 100,000, and 110,000 units.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity Level |  |  |  |
| Production Levels | 90,000 | 100,000 | 110,000 |
| Variable Costs: |  |  |  |
| Manufacturing @ $6 | 540,000 | 600,000 | 660,000 |
| Administrative @ $4 | 360,000 | 400,000 | 440,000 |
| Selling @3 | 270,000 | 300,000 | 330,000 |
| Total Variable costs | 1,170,000 | 1,300,000 | 1,430,000 |
| Fixed Costs |  |  |  |
| Manufacturing | 160,000 | 160,000 | 160,000 |
| Administrative | 80,000 | 80,000 | 80,000 |
| Total Fixed Costs | 240,000 | 240,000 | 240,000 |
| Total Costs | 1,410,000 | 1,540,000 | 1,670,000 |

* If AP sells the toaster ovens for $16 each, how many units will it have to sell to make a profit of $60,000 before taxes?

Required unit = (240,000+60,000)/(16-13) = 100,000 units