

Paul Robbins training and consultancy

Elements of Costing

Cost Accounting and Cost Behaviour

Exercise 2 **Model Answers**

1. Richard works as a mechanic and runs his own garage.

Classify the following costs into the categories of materials, labour or overheads (expenses) by putting a tick in the relevant column of the table below:

Cost	Materials	Labour	Overheads
Wages for mechanics		✓	
Rent of the garage			✓
Spare parts for cars	✓		
Advert in local newspaper			✓
Wages for company accountant		✓	

2. Richard works as a mechanic and runs his own garage.

Classify the following costs by nature (direct or indirect) by putting a tick in the relevant column of the table below:

Cost	Direct	Indirect
Wages for mechanics	✓	
Rent of the garage		✓
Spare parts for cars	✓	
Advert in local newspaper		✓
Wages for company accountant		✓

3. Glorious Garments Ltd makes clothes.

Classify the following costs by function (production, administration or selling and distribution) by putting a tick in the relevant column of the table below:

Cost	Production	Administration	Selling and Distribution
Cost of leasing Sales Manager's Audi			✓
Fabric to be used in the manufacturing process	✓		
Administrator's salary		✓	
Rental of stand at trade show			✓
Pallets for use when dispatching goods			✓
Paper for photocopier		✓	
Factory Foreman's salary	✓		

4. Glorious Garments Ltd makes clothes.

Classify the following costs into fixed, variable or semi-variable by putting a tick in the relevant column of the table below:

Cost	Fixed	Variable	Semi-variable
Cost of leasing fork lift truck for warehouse	✓		
Managing Director's salary	✓		
Mobile phone bill for the Sales Manager			✓
Wages of production staff paid on an hourly basis		✓	
Fabric to be used in the manufacturing process		✓	

5. Glorious Garments Ltd makes clothes.

Complete the table below showing fixed costs, variable costs, total costs and unit cost at the different levels of production:

Units	Fixed Costs	Variable Costs	Total Costs	Unit Cost
250	£1,400	£1,025	£2,425	£9.70
500	£1,400	£2,050	£3,450	£6.90
750	£1,400	£3,075	£4,475	£5.97
1,000	£1,400	£4,100	£5,500	£5.50
1,250	£1,400	£5,125	£6,525	£5.22

6. Spring Ltd produces one product with the following cost details:

Variable material cost per unit = £2

Variable labour cost per unit = £6

Total fixed cost = £10,000

Complete the following total cost and unit cost table for a production level of 20,000 units:

Element	Total Cost	Unit Cost
Materials	£40,000	£2.00
Labour	£120,000	£6.00
Fixed Costs	£10,000	£0.50
Total	£170,000	£8.50

11. You have been provided with the following information relating to a semi-variable cost for Heating and Lighting Expenses.

Production Output (Units)	Total Cost (£)
2,200	2,550
2,600	2,850
400	300

Calculate the variable cost per unit

$$£300 / 400 \text{ units} = £0.75 \text{ per unit}$$

Calculate the fixed cost element

For 2,200 units:

$$TC = FC + VC \text{ therefore } FC = TC - VC$$

$$FC = £2,550 - (2,200 \times £0.75)$$

$$FC = £2,550 - £1,650$$

$$FC = £900$$

Calculate the total cost for a production output of 3,000 units

For 3,000 units:

$$TC = FC + VC$$

$$TC = £900 + (3,000 \times £0.75)$$

$$TC = £900 + £2,250$$

$$TC = £3,150$$

12. A business makes just one product. It plans to make 95,000 units and has budgeted overheads of £418,000.

Calculate the Overhead Absorption Rate (OAR) for the business.

$$OAR = \text{Budgeted Overheads} / \text{Budgeted Units}$$

$$OAR = £418,000 / 95,000 \text{ units}$$

$$OAR = £4.40 \text{ per unit}$$

13. A business makes a range of products. These are produced by hand. It has budgeted direct labour hours of 40,000 hours and budgeted overheads of £370,000.

Calculate the Overhead Absorption Rate (OAR) for the business.

$OAR = \text{Budgeted Overheads} / \text{Budgeted Direct Labour Hours}$

$OAR = £370,000 / 40,000 \text{ direct labour hours}$

$OAR = £9.25 \text{ per direct labour hour}$

14. A business makes a range of products. These are produced by machine. It has budgeted machine hours of 36,000 hours and budgeted overheads of £131,400.

Calculate the Overhead Absorption Rate (OAR) for the business.

$OAR = \text{Budgeted Overheads} / \text{Budgeted Machine Hours}$

$OAR = £131,400 / 36,000 \text{ machine hours}$

$OAR = £3.65 \text{ per machine hour}$