



## Worksheet 4: Formulae answers

Calculation	Formulae
Added value =	$\text{Price} - \text{Total costs}$ <b>OR</b> $\text{Price} - \text{cost of goods sold}$
Sales growth =	$\frac{\text{Original sales} - \text{new sales}}{\text{Original sales}} \times 100$
Labour turnover =	$\frac{\text{Number of workers who left}}{\text{Total/average number of workers sales}} \times 100$
Time-based salary =	$\text{Rate of pay} \times \text{hours worked}$
Piece-rates =	$\text{Units produced} \times \text{rate per unit}$
Commission =	$\text{Sales revenue} \times \text{commission rate (e.g. 25\%)}$
Profit share =	$\text{Total profit} \times \text{share of profit}$
Market share =	$\frac{\text{Business sales revenue}}{\text{Total market revenue}} \times 100$ <b>OR</b> $\frac{\text{Units sold by business}}{\text{Total market units sold}} \times 100$
Market growth =	$\frac{\text{New market size} - \text{Original market size}}{\text{Original market size}} \times 100$
Labour productivity =	$\frac{\text{Output produced}}{\text{Number of workers (per worker)}}$ <b>OR</b> $\frac{\text{Output produced}}{\text{Hours worked (per hour)}}$
Re-order time =	$(\text{Average daily sales} \times \text{lead time}) + \text{minimum stock}$
Lead time =	$\text{Order delivery date} - \text{order request date}$
Capacity utilisation =	$\frac{\text{Current capacity}}{\text{Total capacity}} \times 100$
Profit =	$\text{Price} - \text{Total costs (per unit)}$ <b>OR</b> $\text{Total revenue} - \text{total costs (total)}$
Working capital =	$\text{Current assets} - \text{current liabilities}$
Opening cash flow =	$\text{Closing cash flow} - \text{net cash flow}$



Calculation	Formulae
Closing cash flow =	<i>Opening cash flow + net cash flow</i>
Net cash flow =	<i>Cash flow in – cash flow out</i>
Total variable costs =	<i>Variable costs per unit × output</i>
Average fixed costs =	$\frac{\text{Total fixed costs}}{\text{Output}}$
Contribution =	<i>Price – Variable costs per unit (per unit)</i> <b>OR</b> <i>Revenue – total variable costs (total)</i>
Average total cost =	$\frac{\text{Total costs}}{\text{Output}}$
Marginal cost =	$\frac{\text{Change in cost}}{\text{Change in output}}$
Total cost =	<i>Total variable costs + total fixed costs</i> <b>OR</b> <i>(Variable cost per unit × output) + fixed costs</i>
Break-even level of output =	<i>Fixed costs</i> <i>Contribution</i> <b>OR</b> $\frac{\text{Fixed costs}}{(\text{Price} - \text{variable cost per unit})}$
Margin of safety =	<i>Current level of output – break-even level of output</i>
Adverse budget variance =	<i>Actual cost – budgeted cost</i>
Favourable budget variance =	<i>Actual cost – budgeted cost</i>