

This task examines decision-making. Break-even analysis, together with the calculation of the margin of safety, is frequently assessed, as are limiting factors, make or buy decisions and special orders.

A firm is considering replacing some production machinery with newer, more efficient units. 1 machinery is used to produce a single item the NUT which sells for £36.20. Each year 25,000 NL are produced and sold.

You have the following additional information.

	Current costs	New machinery costs
Direct materials/unit £	£18.40	Usage down by 3%
Direct labour at £10/hour	£5.50	Time down by 5%
Variable power costs	£0.30	Power saving of 20%

Fixed machine running costs including depreciation and power are £220,000. With the introduction of the new machinery the amount of depreciation will increase by £20,000. Complete the table below to calculate the additional income or costs arising from investment in new machinery and indicate whether or not it should be purchased.

	£
Savings in materials costs	£18.40
Savings in direct labour	£5.50
Savings in variable power	£0.30
Increased fixed machine costs	£20,000
Net increase/(decrease) in profit	£18.40

New m
Sales 3620x2
production costs
Contri
less fixed

It is recommended that the firm does / does not buy the machinery. (Delete as appropriate.)

Sales
produc

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Complete the table below to calculate the additional income or costs arising from investment in new machinery and indicate whether or not it should be purchased.

	£
Savings in materials costs	£425
Savings in direct labour	£275
Savings in variable power	£60
Increased fixed machine costs	£20,000
Net increase/(decrease) in profit	£4,315

Now use
Sales 25,000 x 36.20

production costs

Contribution
less fixed

It is recommended that the firm does / does not buy the machinery. (Delete as appropriate.)

Sales
production

less fixed