

4 Rahel manufactures a single product X and wishes to know the break-even point.

REQUIRED

(a) State what is meant by break-even point.

.....
..... [1]

Additional information

The following budgeted information is available for product X.

Selling price per unit	\$2.00
Contribution to sales ratio	62.5%
Fixed costs	\$50 000
Production and sales	100 000 units

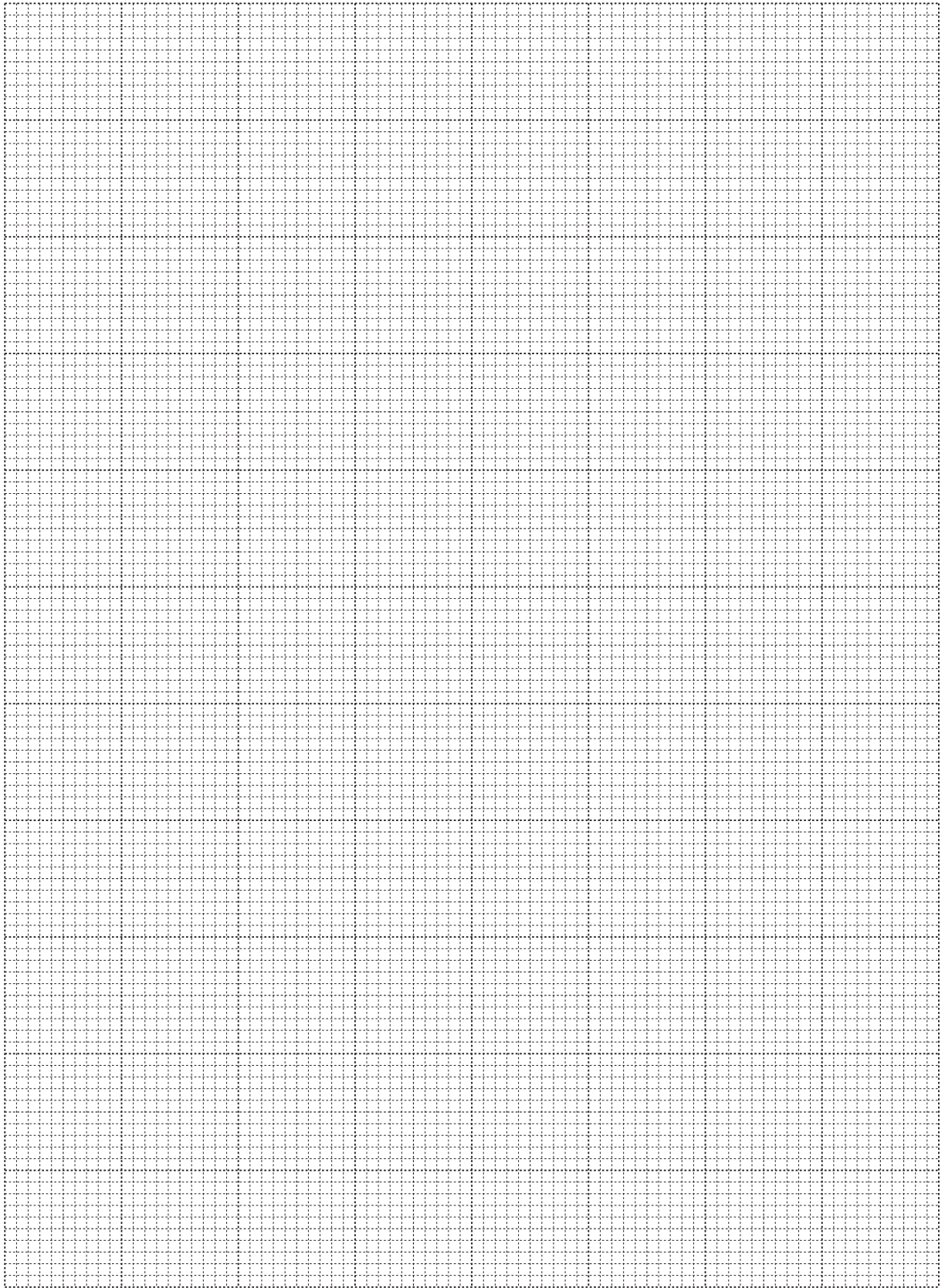
REQUIRED

(b) Calculate the break-even point in units and \$ revenue.

(i) in units
.....
.....
.....

(ii) in revenue
.....
.....
..... [4]

(c) Prepare a break-even chart for product X.



(d) Calculate the margin of safety.

(i) in units

.....

.....

.....

(ii) as a percentage

.....

.....

..... [4]

Additional information

Rahel is considering opening another factory to produce two new products: Y and Z.

The following information is available.

	Y	Z
	\$ per unit	\$ per unit
Direct material	2	4
Direct labour (\$5 per hour)	10	5
Variable overhead	1.5	1.5
Selling price	23	18

ecast demand for April is 4000 units of Y and 6000 units of Z.

REQUIRED

(e) Calculate the contribution per unit of **each** product Y and Z.

.....

.....

.....

..... [2]

Additional information

During April, fixed costs are forecast to be \$60 000.

REQUIRED

- (f)** Calculate the forecast profit for the new factory for the month of April.

[1]

Additional information

During April, direct labour hours are expected to be limited to 10 000 hours.

REQUIRED

- (g)** Calculate the revised profit taking into account the limited direct labour hours.

[5]

Additional information

Rahel has to meet the forecast demand in April as she has contracts with her customers. In order to achieve this she has two alternatives.

- 1 Ask the workers to work overtime.
- 2 Buy in the products from another supplier.

REQUIRED

(h) Advise Rahel which option she should choose. Justify your answer.

[5]

(i) State **one** advantage and **one** disadvantage of marginal costing.

Advantage

.....

.....

.....

Disadvantage

.....