

1. Task

4) A competitive firm is maximizing profits by producing 250 units of output at the current market price of RM1000 per unit. The firm has average fixed cost (AFC) of RM300 and total costs of RM300,000 at this output level.

(a) Draw a diagram showing all the relevant cost and demand curves. That is, include the MR, MC, AVC, and ATC curves.

[6 marks]

(b) Calculate TFC, TVC, ATC, AVC, MC, TR, and MR.

[6 marks]

(c) Calculate and indicate the area of profit on your diagram.

[2 marks]

2. Solution

3. Answer

a) Diagram 1. MR, AVC, MC, ATC

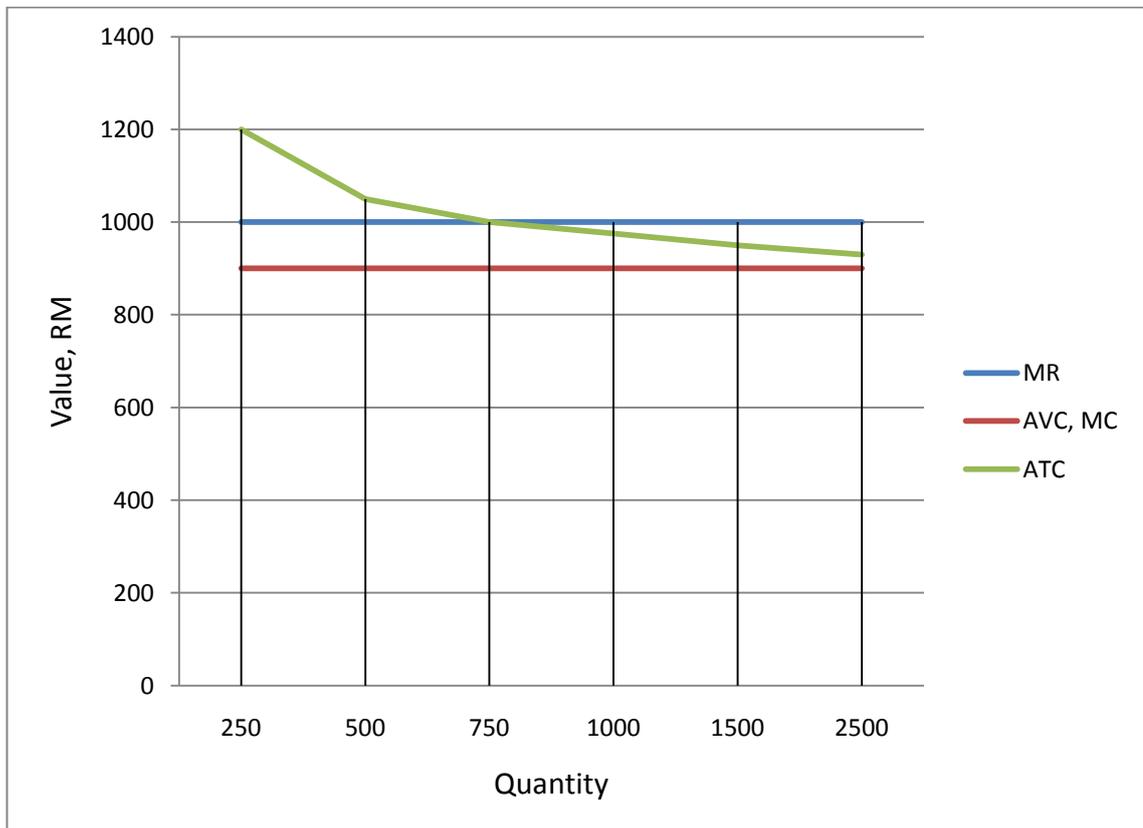


Table 1. MR, AVC, MC, ATC

Quantity (PCS)	MR (RM)	AVC, MC (RM)	ATC (RM)
250	1000	900	1200
500	1000	900	1050
750	1000	900	1000
1000	1000	900	975
1500	1000	900	950
2500	1000	900	930

b) Table 2. MR, TR, AVC, MC, ATC, TFC, TVC, zero profit point

Index	Formula	Value
MR	P	1000RM
TR	$Q \times P$	250 000RM
AVC, MC	$TVC \div Q$	900RM
ATC	$TC \div Q$	1 200RM
TFC	$Q \times AFC$	75 000RM
TVC	$TC - TFC$	225 000RM
zero profit point	$TFC \div MR$	750 PCS

c) Diagram 2. TR, TC, TFC, TVC, profit or loss

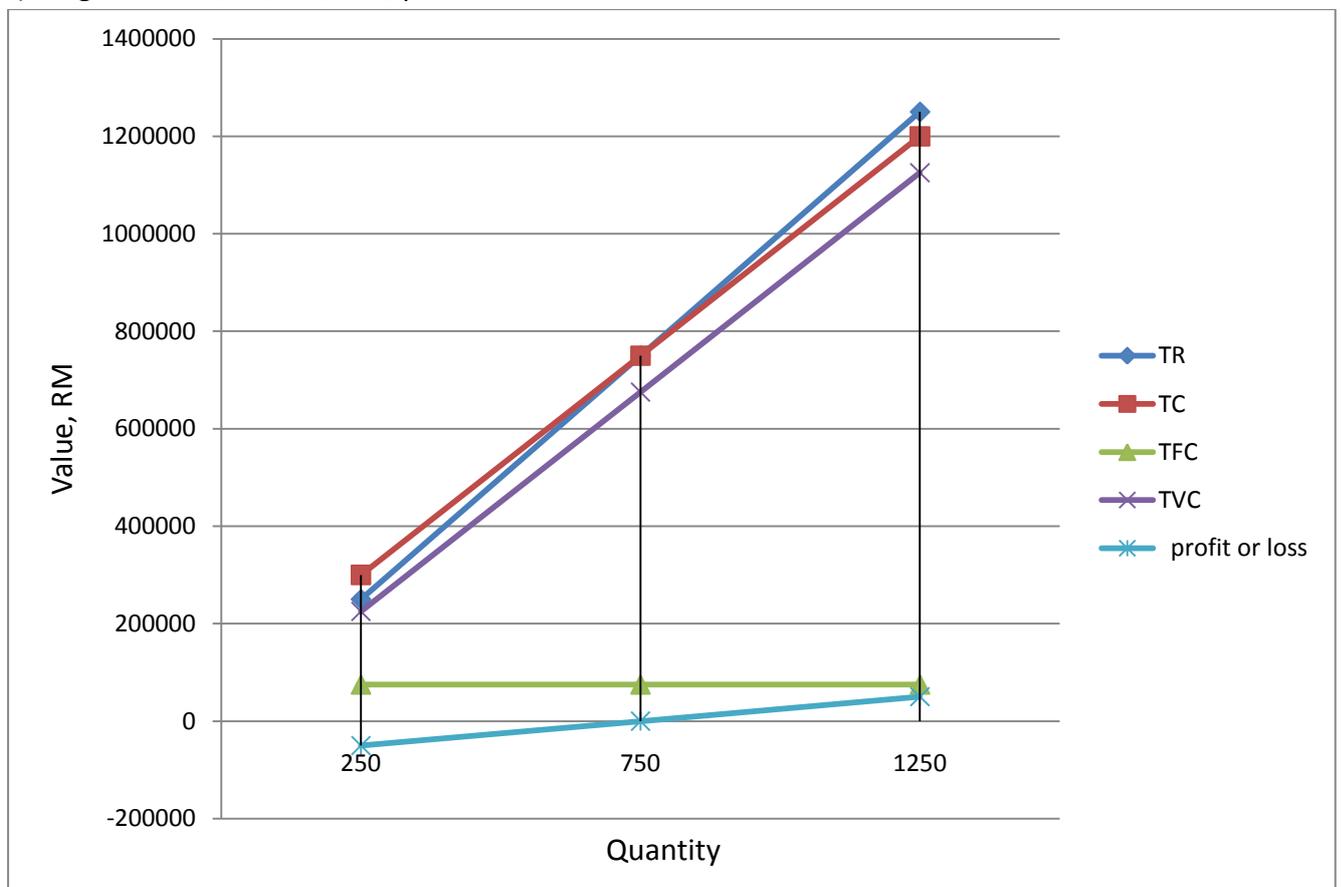


Table 2. TR, TC, TFC, TVC, profit or loss

Quantity	TR	TC	TFC	TVC	profit or loss
250	250000	300000	75000	225000	-50000
750	750000	750000	75000	675000	0
1250	1250000	1200000	75000	1125000	50000

The area of profit includes quantity of more than 750PCS, because zero profit point is 750PCS and $MR > MC$.