

## Solutions

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**2.1**  $TC = TFC + TVC$ ;  $TC$  at 10 =  $60 + 140 = 200$  units.  $ATC = TC/Q$ ;  $ATC$  at 10 =  $200/10 = 20$  units/item. At 12,  $TC = 60 + 168 = 228$  units and  $ATC = 228/12 = 19$  units/item. Interval  $MC = \Delta TC / \Delta Q = (228 - 200) / (12 - 10) = 14$  units/item.  $AVC = TVC/Q = 140/10 = 168/12 = 14$  units/item.  $AFC$  falls from  $60/10 = 6$  to  $60/12 = 5$  units/item, lowering  $ATC$ . These are table intervals, not a claim about a smooth derivative or all output levels. Productivity and profit need their own measures. Authored points for method, application and relevant qualification.

**3.1** Lower long-run average cost can improve competitiveness, but revenue depends on demand and quality. Acquisition can add finance, capacity and coordination risks; integration does not automatically improve management. Compare margins, quality, customer response, entry barriers and alternative organic growth. A small niche firm may rationally remain small. Supported IAL WEC13 targets in this topic are reused; its six still-unsupported objectives and all remaining IA2 gaps stay held, rather than being inferred from this case. Authored points for judgement, case-linked reasoning and justified qualification. Accept supported alternatives.