EXHIBIT 13

SCHAUM'S OUTLINE OF

THEORY AND PROBLEMS

OF

MANAGERIAL ECONOMICS

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Table 8.1 Total and Per Unit Cost Schedules

Q (1)	TFC (2)	TVC (3)	TC (4)	AFC (5)	AVC (6)	ATC (7)	MC (8)
0	$120	$ 0	$120	—	—	—	—
1	120	60	180	$120	$60	$180	$60
2	120	80	200	60	40	100	20
3	120	90	210	40	30	70	10
4	120	104	224	30	26	56	14
5	120	140	260	24	28	52	36
6	120	210	330	20	35	55	70

EXAMPLE 2. Table 8.1 gives the hypothetical short-run total and per unit cost schedules of a firm. These are plotted in Figure 8-1. From column (2) of the table we see that TFC are $120 regardless of the level of output. TVC [column (3)] is zero when output is zero and rises as output rises. At point H' (the point of inflection in the top panel of Fig. 8-1), the law of diminishing returns begins to operate, and the TVC curve faces up or increases at a growing rate. The TC curve has the same shape as the TVC curve but is $120 (the TFC) above it at each output level. MC is plotted halfway between the various levels of output in the bottom panel of Fig. 8-1. The AVC, ATC, and MC curves are U-shaped. AFC is equal to the vertical distance between the ATC and AVC curves. Graphically, AVC is the slope of a ray from the origin to the TVC curve, ATC is the slope of a ray from the origin to the TC curve, and the MC is the slope of the TC or TVC curve. Note that the MC curve reaches its minimum at a lower level of output than, and intercepts from below, the AVC and ATC curves at their lowest point. The U-shape of the AVC and MC curves can be explained, respectively, from the inverted U-shape of the AP and MP curves (see Problem 8.4).

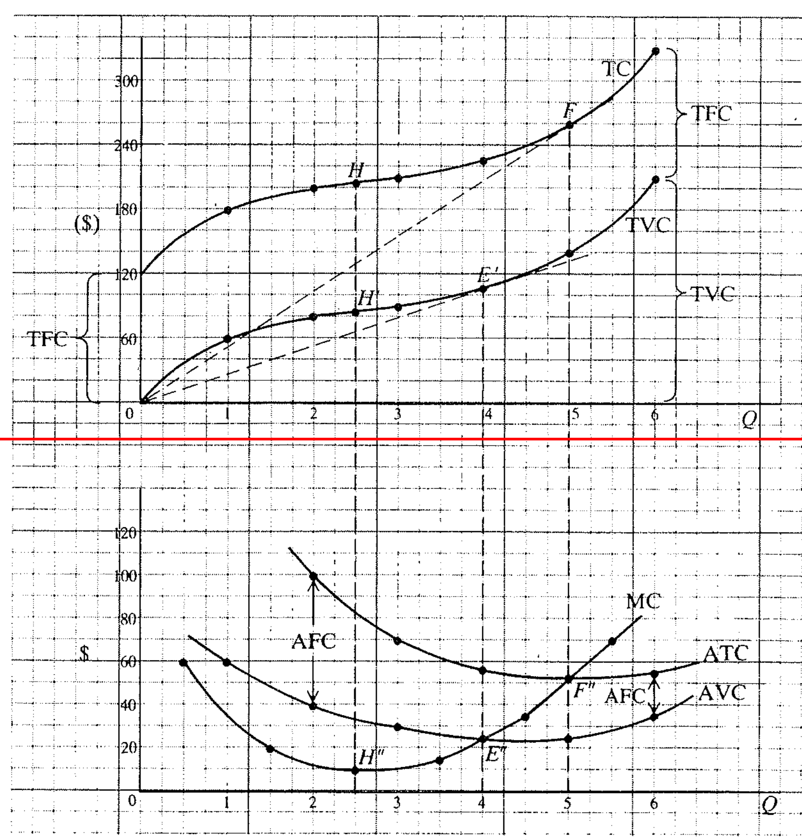

Fig. 8-1