

NUMERICALS FOR PRACTICE: COSTS

(The answers are given in blue)

Q1) Given the following data in the table find values of TC, AC, AFC, AVC and MC. TFC= Rs 100.

Output	0	1	2	3	4	5	6
TVC	0	20	25	40	50	80	120

ANS: $TFC + TVC = TC$,

$TC_n - TC_{n-1} = MC$,

$TFC/Q = AFC$,

$TVC/Q = AVC$,

$AFC + AVC = AC$

Output	TFC	TVC	TC	AFC	AVC	AC	MC
0	100	0	100	-	-	-	-
1	100	20	120	100	20	120	20
2	100	25	125	50	12.5	62.5	5
3	100	40	140	33.33	13.33	46.66	15
4	100	50	150	25	12.5	37.5	10
5	100	80	180	20	16	36	30
6	100	120	220	16.66	20	36.66	40

Q2) Given TFC as 55 find values of TC, AC, AFC, AVC and MC

Q	1	2	3	4	5
TC	75	90	110	135	170

ANS: $TFC + TVC = TC$. Thus, given TFC and TC,

$TVC = TC - TFC$

$TC_n - TC_{n-1} = MC$,

$TFC/Q = AFC$,

$TVC/Q = AVC$,

$AFC + AVC = AC$

Q	TFC	TC	TVC	MC	AFC	AVC	AC
1	55	75	20	-	55	20	75
2	55	90	35	15	27.5	17.5	45
3	55	110	55	20	18.33	18.33	36.66
4	55	135	80	25	13.75	20	33.75
5	55	170	115	35	11	23	34

Q3) Given TFC as Rs 40 , find values of TVC, AC, AFV, AVC and MC based on the given table

Q	0	1	2	3	4	5	6	7
TC	40	52	59	64	70	78	89	103

ANS: $TFC + TVC = TC$. Thus, given TFC and TC,

$$TVC = TC - TFC$$

$$TC_n - TC_{n-1} = MC,$$

$$TFC/Q = AFC,$$

$$TVC/Q = AVC,$$

$$AFC + AVC = AC$$

Q	TFC	TC	TVC	AFC	AVC	AC	MC
0	40	40	0	-	-	-	-
1	40	52	12	40	12	52	12
2	40	59	19	20	9.5	29.5	7
3	40	64	24	13.33	8	21.33	5
4	40	70	30	10	7.5	17.5	6
5	40	78	38	8	7.6	15.6	8
6	40	89	49	6.66	8.16	14.83	11
7	40	103	63	5.71	9	14.71	14