Labor (L)	MP	TP
0	-	0

Using Marginal Product (MP) to calculate Total Product (TP)

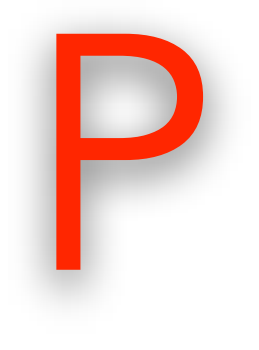
Worker 1 produce 5 units: TP(L=1)= 5 MP_1= 5

With worker 2 output increase by 7 units:

TP(L=2) = 5 (from worker 1) + 7 (from worker 2) = 12

$5+7=12$

M



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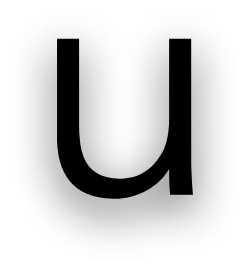

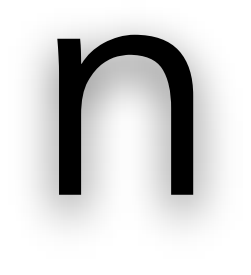

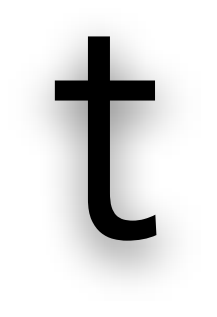

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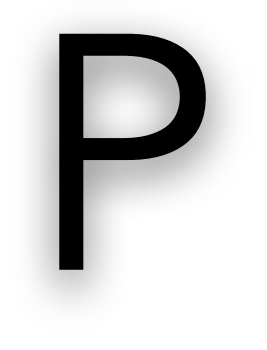

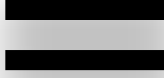

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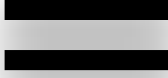

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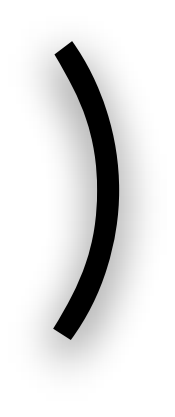
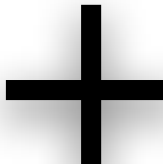
M





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P

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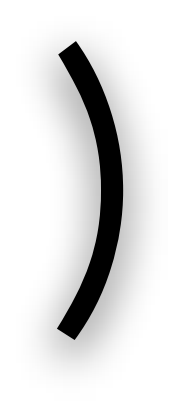

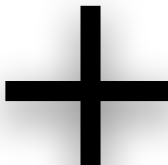

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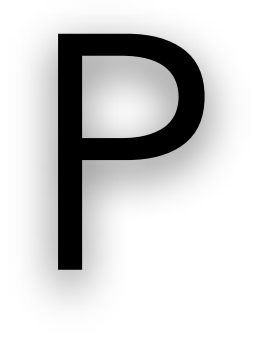
M



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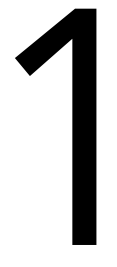

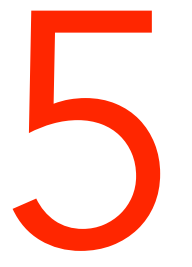
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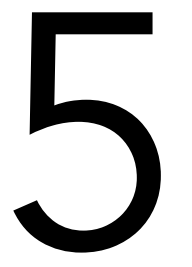
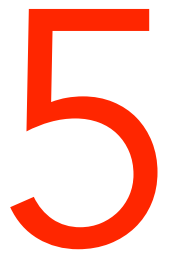


7

$5+7+9=21$

$MP_4 = 12$ units

$TP\ (L=4) = 5\ (MP_1) + 7\ (MP_2) + 9\ (MP_{3)} + 12\ (MP_4) = 33$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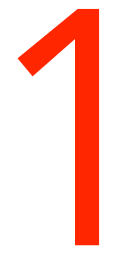
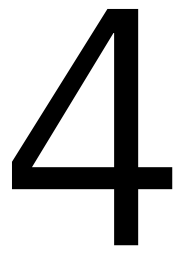


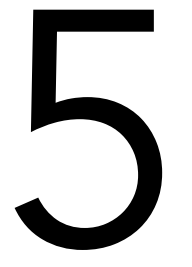


2

$MP_5 = 14$ units

TP (L=5) = 5 (MP_1) + 7 (MP_2) + 9 ($MP_{3)}$ + 12 (MP_4) + 14 (MP_5)= 47

$5+7+9+12+14=47$



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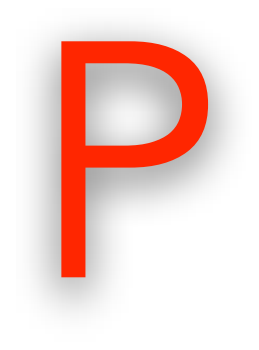

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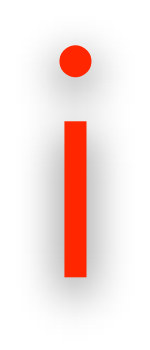
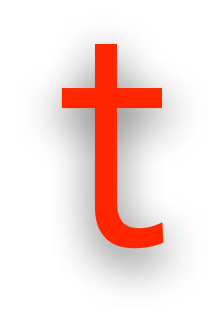
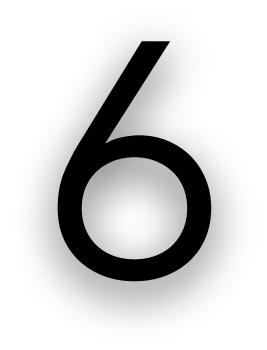




S

P



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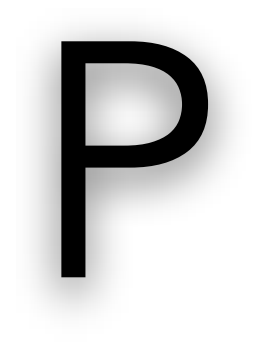

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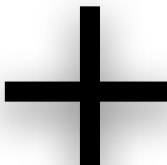
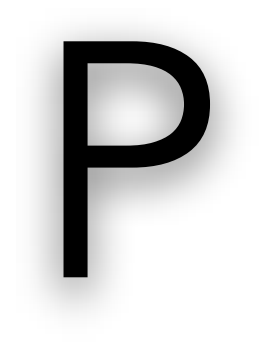
5





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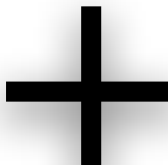

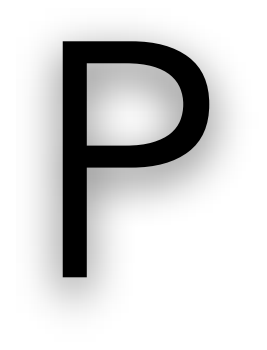

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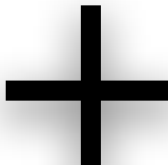

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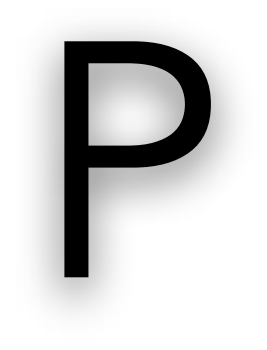

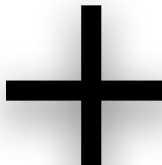

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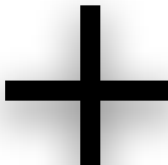

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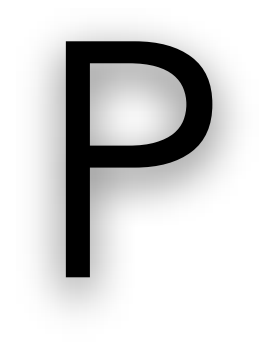


6

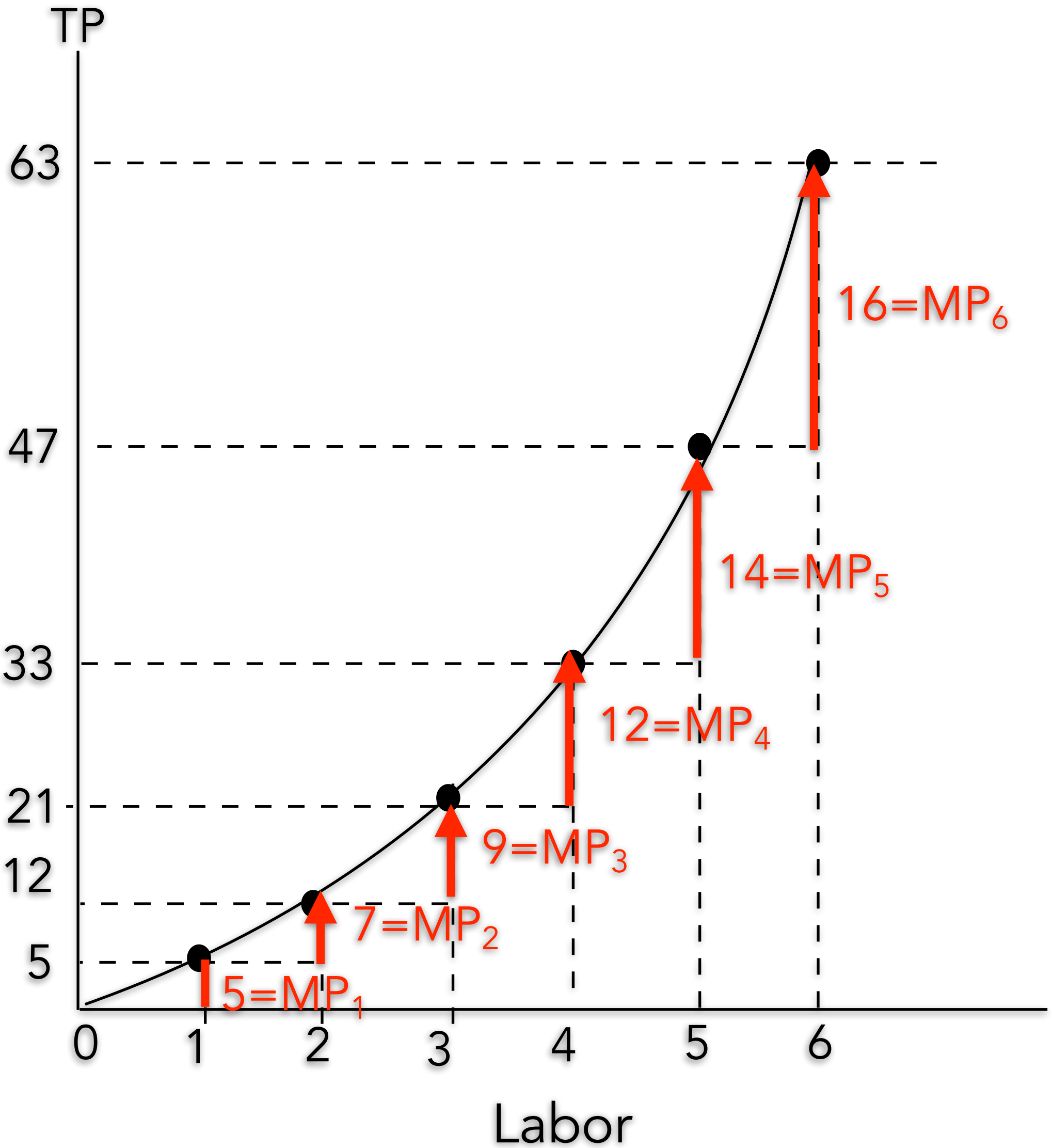
3

$5+7+9+12+14+16=63$

1

We can write a formula to calculate the TP for n workers as the sum of the MP of these n workers:

$$TP\ (L=n) = MP_1 + MP_2 + MP_3 + MP_4 + MP_5 + \ldots + MPn$$


TP
63
47
33
21
12
5
0
1
2
3
4
5
6
Labor
16=MP6
14=MP5
12=MP4
9=MP3
7=MP2
5=MP1

$MP_3 = 9$ units.

$TP\ (L=3) = 5\ (MP_1) + 7\ (MP_2) + 9\ (MP_{3)} = 21$

$5+7+9+12=33$

12

14

$MP_6 = 16$ units

TP (L=6) = (MP_1=5 + MP_2=7 + 9 ($MP_{3)}$ + 12 (MP_4) +

14 (MP_5)+ 16 (MP_6) = 63

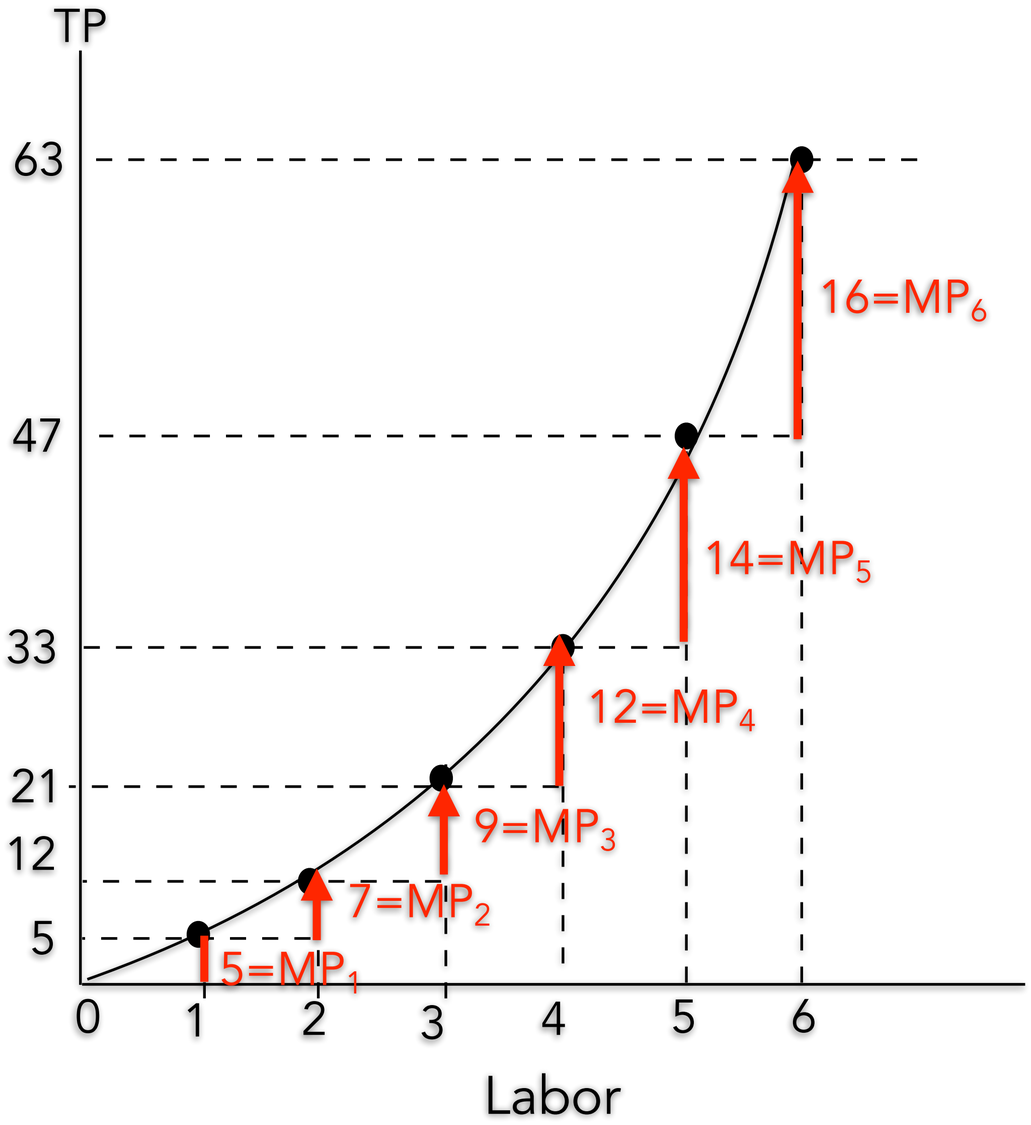
16

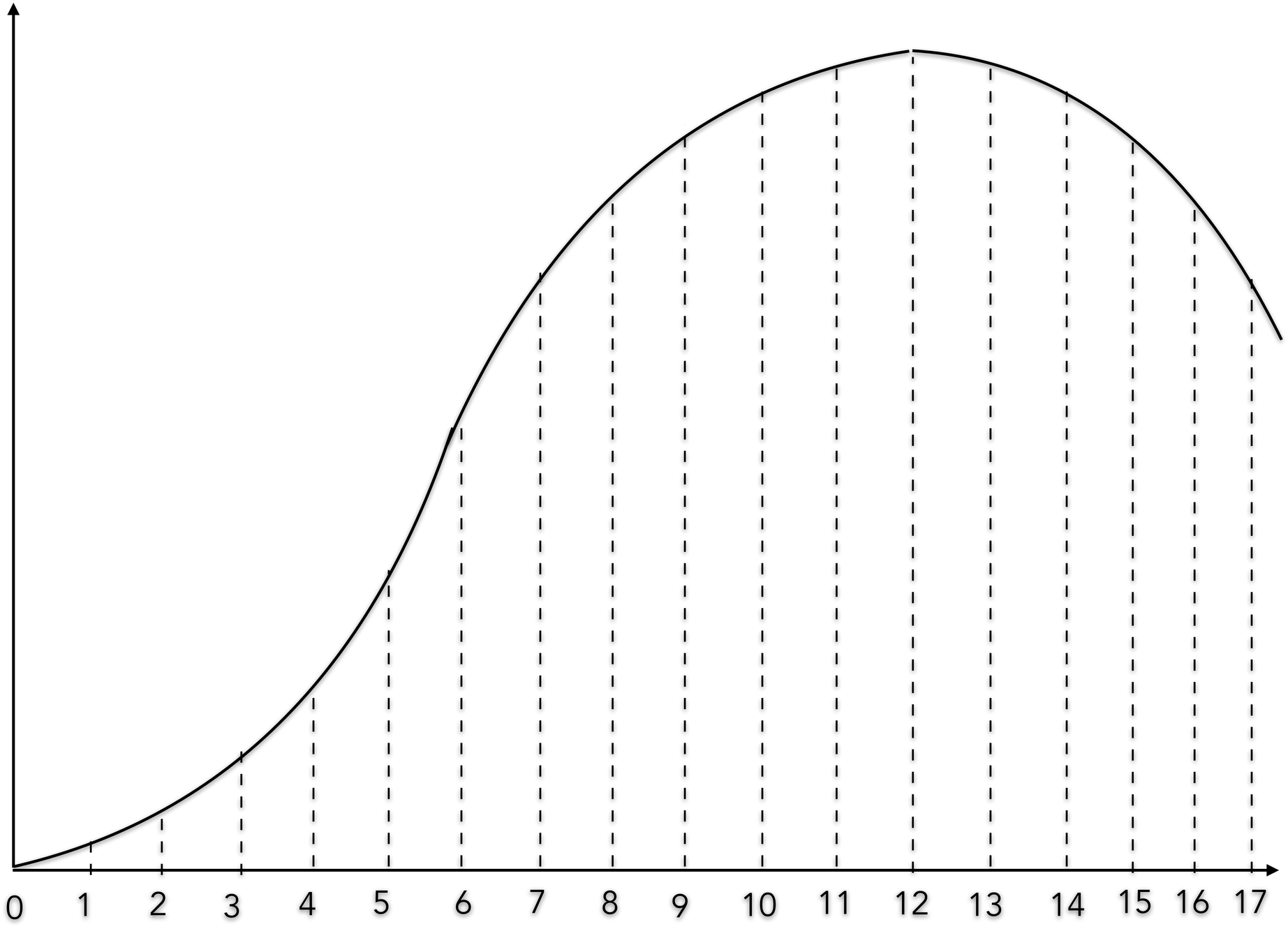
Using Marginal Product (MP) to calculate Total Product (TP)

We can write a formula to calculate the TP for n workers as the sum of the MP of these n workers:

$$TP\ (L=n) = MP_1 + MP_2 + MP_3 + MP_4 + MP_5 + \ldots + MPn$$

Labor (L)	MP	TP
0	-	0
1	5	5
2	7	5+7 =12
3	9	5+7+9 =21
4	12	5+7+9+12=33
5	14	5+7+9+12+14=47
6	16	5+7+9+12+14+16=63

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