

[illegible]

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:

$$TP(L_2) = 5 \text{ (from worker 1)} + 7 \text{ (from worker 2)} = 12$$

5

+

7

=

12

2

M

P

3

9

u

n



t

S



T

P





3



[REDACTED]

[REDACTED]

5



M

P







7



M

P

2





9



M

P

3



[REDACTED]

[REDACTED]

2





5

5





$$5 + 7 + 9 = 21$$





$$MP_4 = 12 \text{ units.}$$

$$TP(L_4) = 5(MP_1) + 7(MP_2) + 9(MP_3) + \\ 12(MP_4) = 33$$

5

























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$$MP_5 = 14 \text{ units}$$

$$TP(L_5) = 5(MP_1) + 7(MP_2) + 9(MP_3) + 12$$

$$(MP_4) + 14(MP_5) = 47$$

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

5





M

P

6



6

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n





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P





6



[REDACTED]

[REDACTED]



M

P



[REDACTED]

[REDACTED]

5



M

P

2

[REDACTED]

[REDACTED]

7



9



M

P

3





1

2



M

P

4







4



M

P

5





6



M

P

6



[REDACTED]

[REDACTED]

6

3

$$5 + 7 + 9 + 11 + 13 + 15 = 63$$

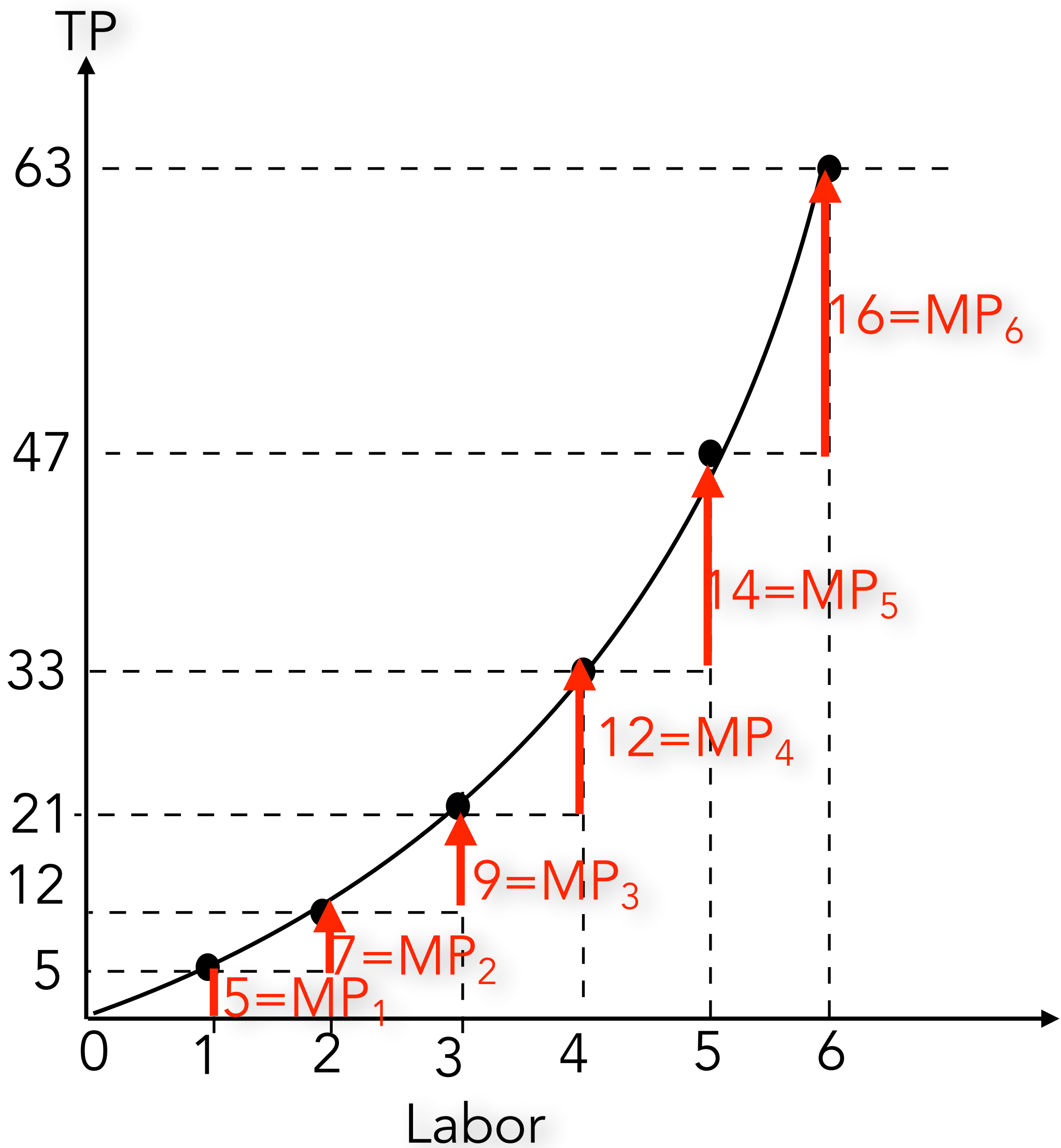






We can write a formula to calculate the TP for n workers as the sum of the MP of these n workers:

$$TP(L_n) = MP_1 + MP_2 + MP_3 + MP_4 + MP_5 + \dots + MP_n$$



$$MP_3 = 9 \text{ units.}$$

$$TP(L_3) = 5(MP_1) + 7(MP_2) + 9(MP_3) = 21$$

$$5 + 7 + 9 + 12 = 33$$

1

2

1

4

$$MP_6 = 16 \text{ units}$$

$$TP(L_6) = (MP_1=5 + MP_2=7 + 9(MP_3) + 12(MP_4) + 14(MP_5) + 16(MP_6) = 63$$

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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:

$$TP(L_n) = MP_1 + MP_2 + MP_3 + MP_4 + MP_5 + \dots + MP_n$$

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

