

[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

[REDACTED]

[REDACTED]

9









S



T

P







3



[REDACTED]

[REDACTED]

5



M











M

P

2









M



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

























2

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

$$TP(L=5) = 5(MP_1) + 7(MP_2) + 9(MP_3) + 12(MP_4) + 14(MP_5) = 47$$

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

5





M

P

6





6

U







S



P





[REDACTED]

[REDACTED]





[REDACTED]

[REDACTED]



M

P



[REDACTED]

[REDACTED]

5



M



2

[REDACTED]

[REDACTED]





9



M

P

3







2



M

P

4







4

5







6



M

P





[REDACTED]

[REDACTED]



3

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

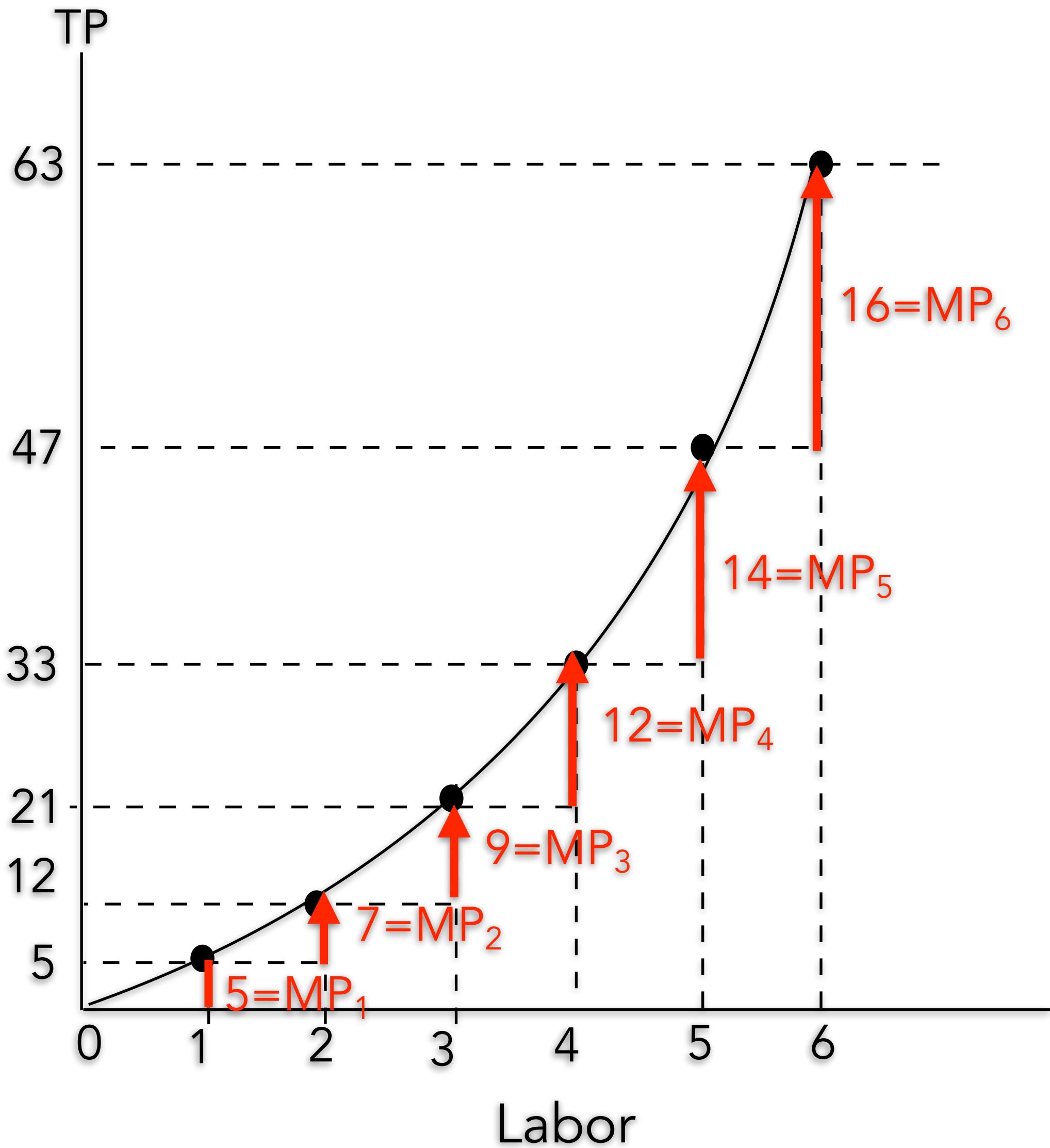






We can write a formula to calculate the TP for n workers as
the sum of the MP of these n workers:

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



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

$$TP(L=3) = 5(MP_1) + 7(MP_2) + 9(MP_3) = 21$$

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

1

2

1

4

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

$$TP(L=6) = (MP_1=5 + MP_2=7 + 9(MP_3) + 12(MP_4) + 14(MP_5) + 16(MP_6) = 63$$

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:

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

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

