

Year	1	2	3	4	5
Machine A	100	500	1500	1800	2000
Machine B	500	800	1200	1600	1900

Q9

1 Kg	2020
1 Kg	2021
1 Kg	2022

100

110

121

10%

2021 → 100  
110 → 2021 → 100  
1 → 2021 → 100  
100 + 10

Q2

	1	2
A	200	300
B	300	200

500

200

500

10000  
2030

Replacement Theory

100  
100

200 X 1

1  
A 200

B 300

2  
300

200

money value change

3  
500

10%

resale value

Operating cost at the beginning of the year

①  $\frac{10}{11}$

②

$$A = 200 + 300 \times \frac{100}{110} + 100$$

$$= 200 + 272$$
$$= 472$$

$$B = 300 + 200 \times \frac{100}{110} + 100$$
$$= 300 + 181$$
$$= 481$$

$$\begin{array}{r} 110 \\ \times 100 \\ \hline 11000 \\ 110 \\ \hline 11100 \end{array}$$
$$\begin{array}{r} 300 \\ \times 100 \\ \hline 30000 \\ 300 \\ \hline 30300 \end{array}$$
$$= \frac{30300}{11}$$
$$= 272.72$$