

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

Score: \_\_\_\_\_

## Worksheet #1

## COMPARING SIMPLE INTEREST AND COMPOUND INTEREST

**Learning goal:** Students will be able to understand and to find compound interest in real-life problems.

**Instructions:** Calculate and compare the amount of simple and compound interest.

Q. No.	GIVEN	AMOUNT(C.I.)	AMOUNT(S.I.)	COMPARE
1.	$P = ₹1,000,$ $r = 5\%, n = 2 \text{ years}$			
2.	$P = ₹2,000,$ $r = 6\%, n = 3 \text{ years}$			
3.	$P = ₹5,000,$ $r = 8\%, n = 4 \text{ years}$			
4.	$P = ₹10,000,$ $r = 10\%, n = 5 \text{ years}$			
5.	$P = ₹7,500,$ $r = 12\%, n = 2 \text{ years}$			
6.	$P = ₹15,000,$ $r = 15\%, n = 3 \text{ years}$			
7.	$P = ₹20,000,$ $r = 20\%,$ $n = 4 \text{ years}$			

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## Worksheet #1(Answer)

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**Instructions:** Calculate and compare the amount of simple and compound interest.

Q. No.	GIVEN	AMOUNT(C.I.)	AMOUNT(S.I.)	COMPARE
1.	$P = ₹1,000, r = 5\%, n = 2 \text{ years}$	$A = 1000 \left(1 + \frac{5}{100}\right)^2$ ₹1,102.50	$A = 1000 + \left[\frac{1000 \times 5 \times 2}{100}\right]$ $A = 1100$	C.I. > S.I. by ₹2.50
2.	$P = ₹2,000, r = 6\%, n = 3 \text{ years}$	$A = 2000 \left(1 + \frac{6}{100}\right)^3$ ₹2,382.03	$A = 2000 + \left[\frac{2000 \times 6 \times 3}{100}\right]$ $A = 2360$	C.I. > S.I. by ₹22.03
3.	$P = ₹5,000, r = 8\%, n = 4 \text{ years}$	$A = 5000 \left(1 + \frac{8}{100}\right)^4$ ₹6,802.44	$A = 5000 + \left[\frac{5000 \times 8 \times 4}{100}\right]$ $A = 6600$	C.I. > S.I. by ₹202.44
4.	$P = ₹10,000, r = 10\%, n = 5 \text{ years}$	$A = 10000 \left(1 + \frac{10}{100}\right)^5$ ₹16,105.10	$A = 10000 + \left[\frac{10000 \times 10 \times 5}{100}\right]$ $A = 15000$	C.I. > S.I. by ₹1,105.10
5.	$P = ₹7,500, r = 12\%, n = 2 \text{ years}$	$A = 7500 \left(1 + \frac{12}{100}\right)^2$ ₹9,408.00	$A = 7500 + \left[\frac{7500 \times 12 \times 2}{100}\right]$ $A = 9300$	C.I. > S.I. by ₹108.00
6.	$P = ₹15,000, r = 15\%, n = 3 \text{ years}$	$A = 15000 \left(1 + \frac{15}{100}\right)^3$ ₹22,781.25	$A = 15000 + \left[\frac{15000 \times 15 \times 3}{100}\right]$ $A = 21750$	C.I. > S.I. by ₹1,031.25
7.	$P = ₹20,000, r = 20\%, n = 4 \text{ years}$	$A = 20000 \left(1 + \frac{20}{100}\right)^4$ ₹41,472.00	$A = 15000 + \left[\frac{15000 \times 15 \times 3}{100}\right]$ $A = 36,000$	C.I. > S.I. by ₹5,472.00