Name: **Grade:** **Score:**

Worksheet #1

COMPOUND INTEREST- TIME CONVERSIONS

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

Instructions: Calculate the Compound Interest using the formula.

$$A = P\left(1 + \frac{r}{200}\right)^{2n} \quad A = P\left(1 + \frac{r}{400}\right)^{4n} \quad A = P\left(1 + \frac{r}{100}\right)^{n}$$

Q. No.	GIVEN	QUARTERLY	HALF YEARLY	ANNUALLY
1.	P = ₹2,000, r = 6%, t = 2 years			
2.	P = ₹5,000, r = 8%, t = 3 years			
3.	P = ₹10,000, r = 5%, t = 4 years			
4.	P = ₹15,000, r = 12%, n = 5 years			
5.	P = ₹20,000, r = 10%, n = 6 years			

Find the amount compounded annually. Given: P=₹4,000, r=5%, n =2 years	Find the amount compounded half yearly. Given: P = ₹6,000, r =7%,n =3years	Find the amount compounded quarterly. Given: P = ₹9,000, r = 9%, n = 4 years	Find the amount compounded yearly. Given: P = ₹14,000, r = 11%,n=5years

Name: **Grade:** **Score:**

Worksheet #1 (Answers)

COMPOUND INTEREST- TIME CONVERSIONS

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

Instructions: Calculate the Compound Interest using the formula.

$$A = P\left(1 + \frac{r}{200}\right)^{2n} \quad A = P\left(1 + \frac{r}{400}\right)^{4n} \quad A = P\left(1 + \frac{r}{100}\right)^{n}$$

Q. No.	GIVEN	QUARTERLY	HALF YEARLY	ANNUALLY
1.	P = ₹2,000, r = 6%, t = 2 years	$A = 2000\left(1 + \frac{6}{400}\right)^{4\times2}$ A= ₹2,262.48	$A = 2000\left(1 + \frac{6}{200}\right)^{2\times2}$ ₹2,259.71	$A = 2000\left(1 + \frac{6}{100}\right)^{2}$ ₹2,247.20
2.	P = ₹5,000, r = 8%, t = 3 years	$A = 5000\left(1 + \frac{8}{400}\right)^{4\times3}$ ₹6,326.53	$A = 5000\left(1 + \frac{8}{200}\right)^{2\times3}$ ₹6,319.39	$A = 5000\left(1 + \frac{8}{100}\right)^{3}$ ₹6,298.56
3.	P = ₹10,000, r = 5%, t = 4 years	$A = 10000\left(1 + \frac{5}{400}\right)^{4\times4}$ ₹12,189.94	$A = 10000\left(1 + \frac{5}{200}\right)^{2\times4}$ ₹12,155.06	$A = 10000\left(1 + \frac{5}{100}\right)^{4}$ ₹12,155.06
4.	P = ₹15,000, r = 12%, n = 5 years	$A = 15000\left(1 + \frac{12}{400}\right)^{4\times5}$ ₹27,091.67	$A = 15000\left(1 + \frac{12}{200}\right)^{2\times5}$ ₹26,862.72	$A = 15000\left(1 + \frac{12}{100}\right)^{5}$ ₹26,435.97
5.	P = ₹20,000, r = 10%, n = 6 years	$A = 20000\left(1 + \frac{10}{400}\right)^{4\times6}$ ₹36,216.41	$A = 20000\left(1 + \frac{10}{200}\right)^{2\times6}$ ₹35,816.95	$A = 20000\left(1 + \frac{10}{100}\right)^{6}$ ₹35,431.22

Find the amount compounded annually. Given: P=₹4,000, r=5%, n =2 years	Find the amount compounded half yearly. Given: P = ₹6,000, r =7%,n =3years	Find the amount compounded quarterly. Given: P = ₹9,000, r = 9%, n = 4 years	Find the amount compounded yearly. Given: P = ₹14,000, r = 11%,n=5years
₹4,410.00	**₹7,364.82**	**₹12,862.47**	**₹23,039.14**