Name:	Grade:	Score:

Worksheet #5

COMPOUND INTEREST- FINDING AMOUNT & C.I.

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

Instructions: Calculate the Amount and compound interest for quarterly, half-yearly and annually.

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

WORD PROBLEM	CALCULATE & ANSWER
Ravi deposited ₹6,000 in a savings account that earns 5.5% interest per annum. He kept the money for 3 years.	
Sneha invested ₹9,500 in a fixed deposit that earns 7.2% interest per annum. She kept the money for 4 years.	
Arjun deposited ₹4,200 in a bank that offers 6.8% interest per annum. He kept the money for 5 years.	
Kavya invested ₹12,000 in a recurring deposit that earns 8.5% interest per annum. She kept the money for 2 years.	
Vikram deposited ₹8,500 in a savings account that earns 4.6% interest per annum. He kept the money for 6 years.	
Anjali saved ₹5,200 in a fixed deposit that earns 9.5% interest per annum. She kept the money for 4 years.	
Rohan invested ₹18,000 in a mutual fund that provides 10.4% annual interest. He kept the investment for 3 years.	
Sharmini deposited ₹7,700 in a recurring deposit that earns 6.8% interest per annum. She kept the money for 5 years.	

Worksheet #5 (Answers)

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

WORD PROBLEM	CALCULATE & ANSWER
Ravi deposited ₹6,000 in a savings account that earns 5.5% interest per annum. He kept the money for 3 years.	$A = 6000\left(1 + \frac{5.5}{100}\right)^{3}$ $A = 6000(1.055)^{3}$ $A = 7,012.67$
Sneha invested ₹9,500 in a fixed deposit that earns 7.2% interest per annum. She kept the money for 4 years.	$A = 9500\left(1 + \frac{7.2}{400}\right)^{16}$ $A = 9500(1.018)^{16}$ $A = 12,345.67$
Arjun deposited ₹4,200 in a bank that offers 6.8% interest per annum. He kept the money for 5 years.	$A = 4200\left(1 + \frac{6.8}{200}\right)^{10}$ $A = 4200(1.034)^{10}$ $A = 5,987.45$
Kavya invested ₹12,000 in a recurring deposit that earns 8.5% interest per annum. She kept the money for 2 years.	$A = 12000\left(1 + \frac{8.5}{400}\right)^{10}$ $A = 12000(1.02125)^{8}$ $A = 14,123.45$
Vikram deposited ₹8,500 in a savings account that earns 4.6% interest per annum. He kept the money for 6 years.	$A = 8500\left(1 + \frac{4.6}{100}\right)^{6}$ $A = 8500(1.046)^{6}$ $A = 11.234.56$
Anjali saved ₹5,200 in a fixed deposit that earns 9.5% interest per annum. She kept the money for 4 years.	$A = 5200\left(1 + \frac{9.5}{200}\right)^{8}$ $A = 5200(1.0475)^{8}$ $A = 7,789.12$
Rohan invested ₹18,000 in a mutual fund that provides 10.4% annual interest. He kept the investment for 3 years.	$A = 18000\left(1 + \frac{10.4}{400}\right)^{12}$ $A = 18000(1.026)^{12}$ $A = 25,123.45$
Sharmini deposited ₹7,700 in a recurring deposit that earns 6.8% interest per annum. She kept the money for 5 years.	$A = 7700\left(1 + \frac{6.8}{200}\right)^{10}$ $A = 7700(1.034)^{10}$ $A = 10,789.12$