Worksheet #4

FINDING COMPOUND INTEREST AND AMOUNT

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

Instructions: Calculate the Amount and compound interest using the formula.

$$A = P\left(1 + \frac{r}{100}\right)^n$$

WORD PROBLEM	CALCULATION	C.I. = A - P	A = P + C.I.
Ananya deposited ₹5,500 in a fixed deposit that earns 6% interest per annum. She kept the money for 3 years.			
Rahul invested ₹12,500 in a savings account that earns 5.5% interest per annum. He kept the money for 4 years.			
Kiran deposited ₹8,000 in a bank that offers 7.2% interest per annum. She kept the money for 5 years.			
Vivek invested ₹18,000 in a recurring deposit that earns 8.5% interest per annum. He kept the money for 2 years.			
Sneha saved ₹6,500 in a savings account that earns 4.8% interest per annum. She kept the money for 6 years.			
Aarav deposited ₹9,200 in a fixed deposit that earns 9% interest per annum. He kept the money for 3 years.			
Ishita invested ₹14,000 in a mutual fund that provides 10.5% annual interest. She kept the investment for 4 years.			
Rohan deposited ₹25,000 in a recurring deposit that earns 3.5% interest per annum. He kept the money for 5 years.			

Worksheet #4 (Answers)

FINDING COMPOUND INTEREST AND AMOUNT

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

Instructions: Calculate the Amount and compound interest using the formula.

$$A = P\left(1 + \frac{r}{100}\right)^n$$

WORD PROBLEM	CALCULATION	C.I. = A - P	A = P + C.I.
Ananya deposited ₹5,500 in a fixed deposit that earns 6% interest per annum. She kept the money for 3 years.	$A = 5500(1 + \frac{6}{100})^3$ $= 6,558.47$	₹1,058.47	₹6,558.47
Rahul invested ₹12,500 in a savings account that earns 5.5% interest per annum. He kept the money for 4 years.	$A = 12500(1 + \frac{5.5}{100})^4$ $= 15,476.23$	₹2,976.23	₹15,476.23
Kiran deposited ₹8,000 in a bank that offers 7.2% interest per annum. She kept the money for 5 years.	$A = 8000(1 + \frac{7.2}{100})^5$ $= 11,319.41$	₹3,319.41	₹11,319.41
Vivek invested ₹18,000 in a recurring deposit that earns 8.5% interest per annum. He kept the money for 2 years.	$A = 18000(1 + \frac{8.5}{100})^2$ $= 21,186.30$	₹3,186.30	₹21,186.30
Sneha saved ₹6,500 in a savings account that earns 4.8% interest per annum. She kept the money for 6 years.	$A = 6500(1 + \frac{4.8}{100})^6$ $= 8,632.14$	₹2,132.14	₹8,632.14
Aarav deposited ₹9,200 in a fixed deposit that earns 9% interest per annum. He kept the money for 3 years.	$A = 9200(1 + \frac{9}{100})^3$ $= 11,944.77$	₹2,744.77	₹11,944.7
Ishita invested ₹14,000 in a mutual fund that provides 10.5% annual interest. She kept the investment for 4 years.	$A = 14000(1 + \frac{10.5}{100})^4$ $= 20,964.37$	₹6,964.37	₹20,964.37
Rohan deposited ₹25,000 in a recurring deposit that earns 3.5% interest per annum. He kept the money for 5 years.	$A = 25000(1 + \frac{3.5}{100})^5$ $= 29,752.45$	₹4,752.45	₹29,752.45