

Name: _____

Grade: _____

Score: _____

Worksheet #3

COMPOUND INTEREST- FINDING AMOUNT

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

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

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

WORD PROBLEM	GIVEN	CALCULATION	AMOUNT
Aarav deposited ₹5,000 in a fixed deposit that earns 6% interest per annum. He kept the money in the account for 4 years.			
Priya deposited ₹8,000 in a savings account that earns 5% interest per annum. She kept the money in the account for 3 years.			
Rohan deposited ₹3,500 in a bank that gives 7% interest per annum. He kept the money in the account for 5 years.			
Ananya deposited ₹10,000 in a recurring deposit that earns 8% interest per annum. She kept the money in the account for 2 years.			
Kabir deposited ₹6,000 in a savings account that earns 9% interest per annum. He kept the money in the account for 3 years.			
Meera deposited ₹4,500 in a fixed deposit that earns 10% interest per annum. She kept the money in the account for 4 years.			
Aditya deposited ₹2,000 in a bank that gives 4% interest per annum. He kept the money in the account for 6 years.			
Ishita deposited ₹7,000 in a recurring deposit that earns 3% interest per annum. She kept the money in the account for 5 years.			

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Worksheet #3 (Answers)

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

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

WORD PROBLEM	GIVEN	CALCULATION	AMOUNT
Aarav deposited ₹5,000 in a fixed deposit that earns 6% interest per annum. He kept the money in the account for 4 years.	$P = ₹5,000$ $r = 6\%$ $n = 4$	$A = 5000 \left(1 + \frac{6}{100} \right)^4$ $A = 5000(1.06)^4$ $A = 5000(1.262476)$	₹6,312.38
Priya deposited ₹8,000 in a savings account that earns 5% interest per annum. She kept the money in the account for 3 years.	$P = ₹8000$ $r = 5\%$ $n = 3$	$A = 8000 \left(1 + \frac{5}{100} \right)^3$ $A = 8000(1.05)^3$ $A = 8000(1.157625)$	₹9,261
Rohan deposited ₹3,500 in a bank that gives 7% interest per annum. He kept the money in the account for 5 years.	$P = ₹3500$ $r = 7\%$ $n = 5$	$A = 3500 \left(1 + \frac{7}{100} \right)^5$ $A = 3500(1.07)^5$ $A = 3500(1.402551)$	₹4908.93
Ananya deposited ₹10,000 in a recurring deposit that earns 8% interest per annum. She kept the money in the account for 2 years.	$P = ₹10,000$ $r = 8\%$ $n = 2$	$A = 10000 \left(1 + \frac{8}{100} \right)^2$ $A = 10000(1.08)^2$ $A = 10000(1.1664)$	₹11,664
Kabir deposited ₹6,000 in a savings account that earns 9% interest per annum. He kept the money in the account for 3 years.	$P = ₹6,000$ $r = 9\%$ $n = 3$	$A = 6000 \left(1 + \frac{9}{100} \right)^3$ $A = 6000(1.09)^3$ $A = 6000(1.295029)$	₹7,770.17
Meera deposited ₹4,500 in a fixed deposit that earns 10% interest per annum. She kept the money in the account for 4 years.	$P = ₹4,500$ $r = 10\%$ $n = 4$	$A = 4500 \left(1 + \frac{10}{100} \right)^4$ $A = 4500(1.10)^4$ $A = 4500(1.4641)$	₹6,588.45
Aditya deposited ₹2,000 in a bank that gives 4% interest per annum. He kept the money in the account for 6 years.	$P = ₹2,000$ $r = 4\%$ $n = 6$	$A = 2000 \left(1 + \frac{4}{100} \right)^6$ $A = 2000(1.04)^6$ $A = 2000(1.265319)$	₹2,530.64
Ishita deposited ₹7,000 in a recurring deposit that earns 3% interest per annum. She kept the money in the account for 5 years.	$P = ₹7,000$ $r = 3\%$ $n = 5$	$A = 7000 \left(1 + \frac{3}{100} \right)^5$ $A = 7000(1.03)^5$ $A = 7000(1.159274)$	₹8,114.92