

Compound Interest

Name: \_\_\_\_\_ Class: S. 3 \_\_\_\_\_ ( ) Date: \_\_\_\_\_

Investigation (Give your answers correct to 1 decimal place if necessary.)

1. Siu Ming deposits a sum of money in Mother Bank. By moving the red slider, complete the following table.

Principal	Interest rate (p.a.)	Deposit Time	Settlement
\$80 000	5%	2 years	Yearly (1 period in one year)

	Principal	Computation of Interest	Interest	Amount	Amount (alternatively)
Year 1					

Is there any change in the principal?  Yes  No

Is the interest earned in each settlement the same?  Yes  No

Amount = \_\_\_\_\_ Total interest = \_\_\_\_\_  
 = \_\_\_\_\_ = \_\_\_\_\_

2. Siu Ming deposits another sum of money in Mother Bank. By moving the red slider, complete the following table.

Principal	Interest rate (p.a.)	Deposit Time	Settlement
\$80 000	5%	2 years	Half-yearly (2 periods in one year)

	Principal	Computation of Interest	Interest	Amount	Amount (alternatively)
Half-year 1					

Is there any change in the principal?  Yes  No

Is the interest earned in each settlement the same?  Yes  No

Amount = \_\_\_\_\_ Total interest = \_\_\_\_\_  
 = \_\_\_\_\_ = \_\_\_\_\_

3. If the settlement changes to “quarterly (4 periods in one year)” or “monthly (12 periods in one year)”, will Siu Ming receive the same interest at the end?  
 Yes  No

Exercises (Give your answers correct to 2 decimal place if necessary.)

Evaluate the compound interest and the amount in each of the following table.

1.

Principal	Interest rate (p.a.)	Deposit Time	Settlement
\$65 000	6%	3 years	Yearly (1 period in one year)

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2.

Principal	Interest rate (p.a.)	Deposit Time	Settlement
\$90 000	4%	5 years	quarterly (4 periods in one year)

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3.

Principal	Interest rate (p.a.)	Deposit Time	Settlement
\$120 000	3%	2.5 years	monthly (12 periods in one year)

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