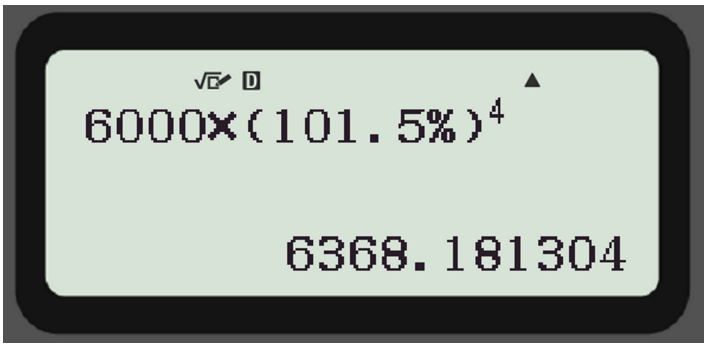
9 Omar invests 6000 dirham for 4 years in a savings account.
He will get 1.5% per year compound interest.

↑ 1·5%
100 + 1·5 = 101·5%

Work out the total amount of interest Omar will have received by the end of 4 years.
Give your answer correct to the nearest dirham.



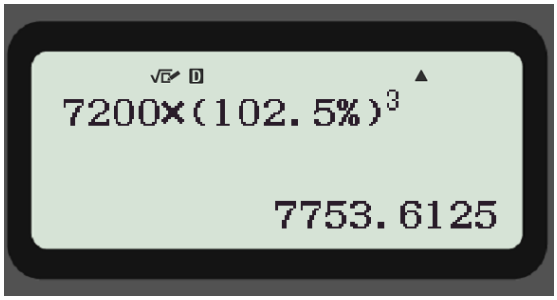
6368 dirham

(Total for Question 9 is 3 marks)

7 Kuro invests 50 000 yen for 3 years in a savings account.
She gets 2.4% per year compound interest.

↑ 2·4%
100 + 2·4 = 102·4%

Work out how much money Kuro will have in her savings account at the end of the 3 years.
Give your answer correct to the nearest yen.



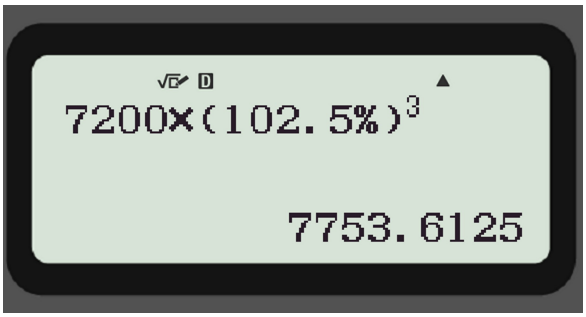
7754 dollars

(Total for Question 7 is 3 marks)

5 Shane invests 7200 dollars for 3 years in a savings account.
He gets 2.5% per year compound interest.

↑ 2.5%
100 + 2.5 = 102.5%

How much money will Shane have in his savings account at the end of 3 years?
Give your answer to the nearest dollar.



7754 dollars

(Total for Question 5 is 3 marks)

8 Matteo is going to invest 5000 Swiss francs for two years.

He can invest his money in Bank **G** or in Bank **H**.

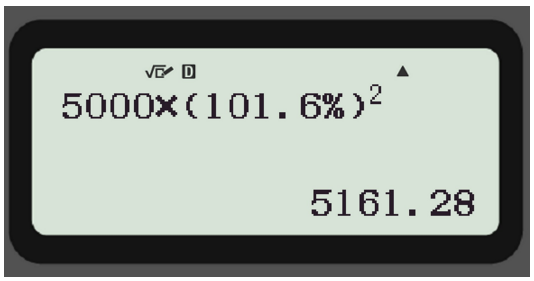
Bank **G**	Bank **H**
1.6% per year compound interest	2.9% interest added after two years

The total amount of interest Matteo would receive at the end of two years from Bank **G** is more than the amount of interest Matteo would receive at the end of two years from Bank **H**.

How much more?

G

100 + 1·6 = 101·6%



H

5000 × 2·9% = 145

5000 + 145
= 5145

5161·28 − 5145 = 16·28

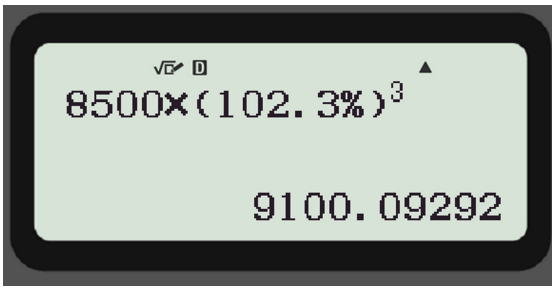
16·28 Swiss francs

(Total for Question 8 is 4 marks)

7 Jenny invests $8500 for 3 years in a savings account.
She gets 2.3% per year compound interest.

↑2·3%
100 + 2·3 = 102·3%

(a) How much money will Jenny have in her savings account at the end of 3 years?
Give your answer correct to the nearest dollar.



$ 9100

(3)

(Total for Question 7 is 6 marks)

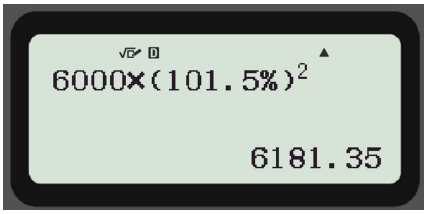
11 Max invests $6000 in a savings account for 3 years.
The account pays compound interest at a rate of 1.5% per year for the first 2 years.

↑ 1·5%

The compound interest rate changes for the third year.
At the end of 3 years, there is a total of $6311.16 in the account.

100 + 1·5 = 101·5%

Work out the compound interest rate for the third year.
Give your answer correct to 1 decimal place.



End of year 2 = 6181·35
End of year 3 = 6311·16

129·81

change / original × 100

129·81 / 6181·35 × 100 = 2·1000 %.

2·1 %

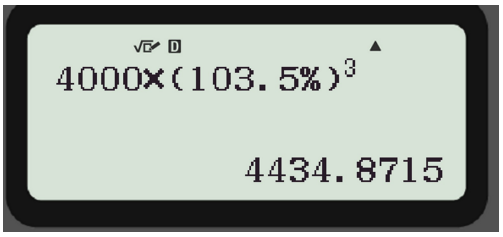
(Total for Question 11 is 3 marks)

7 Chen invests 40 000 yuan in a fixed-term bond for 3 years.

The fixed-term bond pays compound interest at a rate of 3.5% each year.

(a) Work out the value of Chen's investment at the end of 3 years.
Give your answer to the nearest yuan.

↑3·5%
100+3·5=
103·5%



4435 yuan

(3)

11 Himari invests 200 000 yen for 3 years in a savings account paying compound interest.

The rate of interest is 1.8% for the first year and x% for each of the second year and the third year.

The value of the investment at the end of the third year is 209 754 yen.

Work out the value of x
Give your answer correct to one decimal place.

$200000 \times 1{\cdot}8\% = 3600$

$200000 + 3600 = 203600$ End of Yr 1

$203600 \times (100 + x\,\%)^2 = 209754$

$(100 + x\,\%)^2 = \frac{209754}{203600}$

$(100 + x\,\%)^2 = 1{\cdot}0302\ldots$

$100 + x\,\% = \sqrt{1{\cdot}0302\ldots}$

$100 + x\,\% = 1{\cdot}015\ldots$

$\times 100$ $\times 100$

$100 + x = 101{\cdot}500$

-100 -100

$x =$ .....

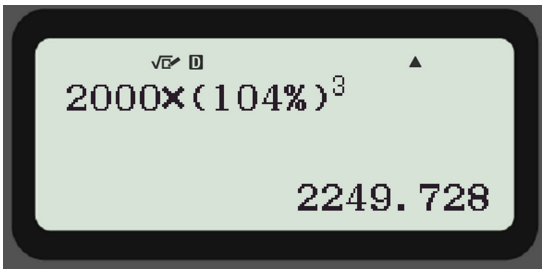
(Total for Question 11 is 3 marks)

$x = 1{\cdot}5$

9 Teresa invests $2000 for 3 years in a savings account.
She gets 4% each year compound interest.

↑4%
100 + 4 = 104 %

(a) How much money will Teresa have in her savings account at the end of 3 years?
Give your answer correct to the nearest dollar.



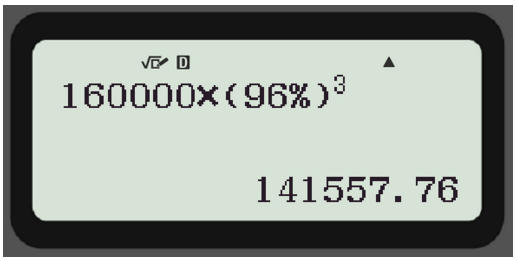
$ 2250

(3)

7 Chao bought a boat for HK$160 000
The value of the boat depreciates by 4% each year. ↓ 4%

100 − 4 = 96%

(a) Work out the value of the boat at the end of 3 years.
Give your answer correct to the nearest HK$.



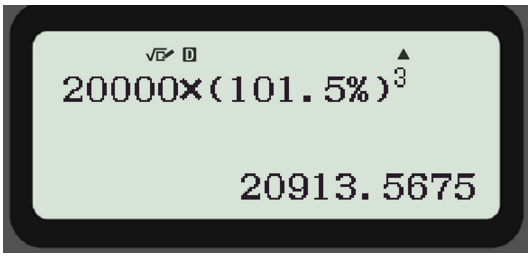
HK$ 141558

(3)

6 Hiran invests 20 000 rupees in an account for 3 years at 1.5% per year compound interest.

Work out the total amount of money in the account at the end of 3 years.
Give your answer to the nearest rupee.

↑ 1·5%
100 + 1·5
= 101·5%



20914 rupees

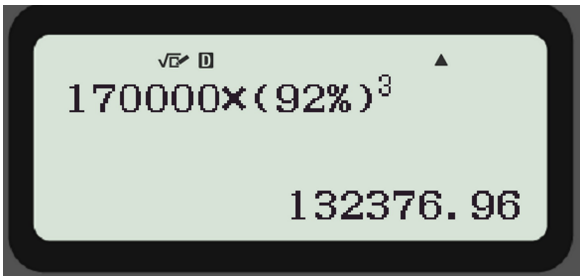
(Total for Question 6 is 3 marks)

8 On 1st January 2016 Li bought a boat for $170 000
The value of the boat depreciates by 8% per year.

↓8% 100 − 8 = 92%

Work out the value of the boat on 1st January 2019
Give your answer correct to the nearest dollar.

2016
2019 ↓3yrs



$ 132377

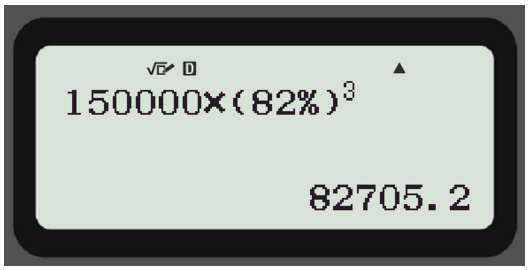
(Total for Question 8 is 3 marks)

10 Henri buys a yacht for 150 000 euros.

The yacht depreciates in value by 18% each year.

↓ 18% 100 − 18 = 82%

Work out the value of the yacht at the end of 3 years.
Give your answer correct to the nearest euro.



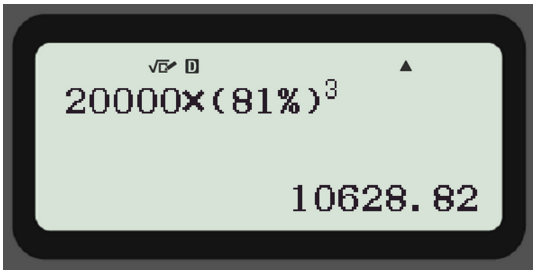
82705 euros

(Total for Question 10 is 3 marks)

8 Hamish buys a new car for $20 000
The car depreciates in value by 19% each year.

↓ 19% 100 − 19 = 81%

Work out the value of the car at the end of 3 years.
Give your answer to the nearest $.



$ 10629

(Total for Question 8 is 3 marks)

11

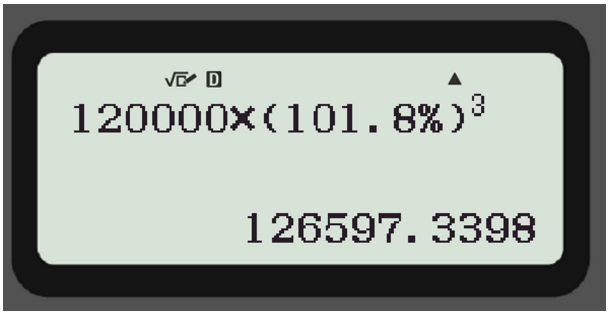
Zhi bought a house on 1st January 2017
When she bought the house, its value was 120 000 yuan.

The value of the house increased by 1.8% per year.

↑ 1·8%.
100 + 1·8 = 101·8%

(b) Work out the value of Zhi's house on 1st January 2020
Give your answer correct to 3 significant figures.

2017
2020 ↓ 3yrs



3sf
↓
1 2 6 (5) 9 7

127000 yuan

(3)

(Total for Question 11 is 6 marks)

6 Pam bought a boat.

In each year after Pam bought the boat, the value of the boat depreciated by 15%

↓ 15%

100 − 15 = 85%

(b) Work out the total percentage by which the value of the boat had depreciated by the end of the second year after Pam bought the boat.

85% × 85% = 0·7225

0·7225 × 100 = 72·25% remain

100 − 72·25 = 27·75

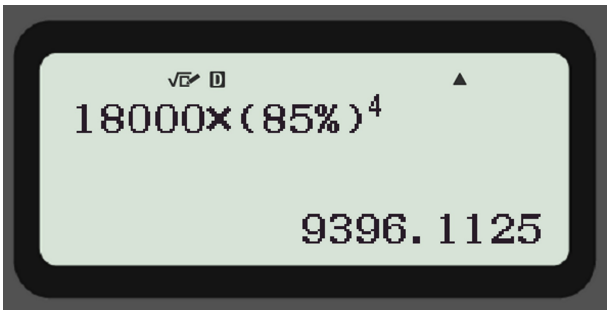
27·75 %

(3)

8 Jane bought a new car for $18 000
The car depreciates in value by 15% each year.

↓ 15% 100 − 15 = 85%

Work out the value of the car at the end of 4 years.
Give your answer correct to the nearest $



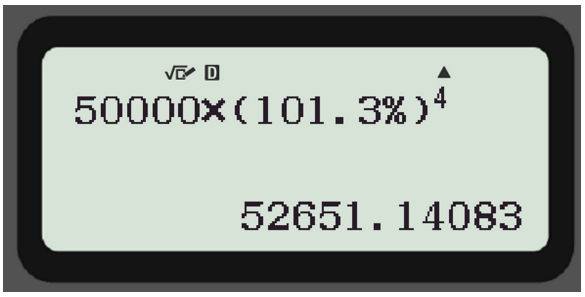
$ 9396

(Total for Question 8 is 3 marks)

9 Pasha invests 50 000 dollars in a savings account for 4 years.
He gets 1.3% per year compound interest.

↑ 1·3 100 + 1·3 = 101·3%.

Work out how much money Pasha will have in his savings account at the end of 4 years.
Give your answer correct to the nearest dollar.

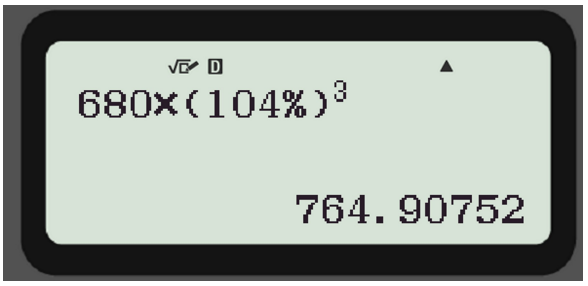


52651 dollars

(Total for Question 9 is 3 marks)

8 Charlotte buys a painting for $680
The value of the painting increases by 4% each year. ↑4%. 100+4 = 104%.

Work out the value of the painting at the end of 3 years.
Give your answer correct to the nearest $



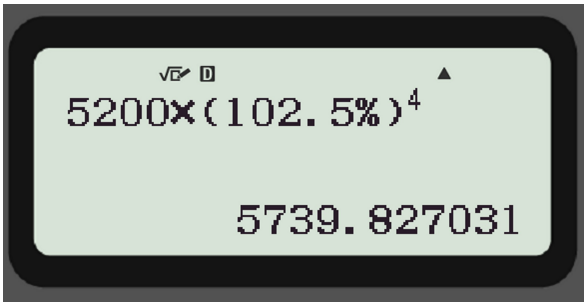
$ 765

(Total for Question 8 is 3 marks)

5 Slavomir invests 5200 euros in a savings account for 4 years.
He gets 2.5% per year compound interest.

↑2.5%. 100 + 2.5 = 102.5%.

Work out how much money Slavomir will have in the savings account at the end of 4 years.
Give your answer correct to the nearest euro.



5740 euros

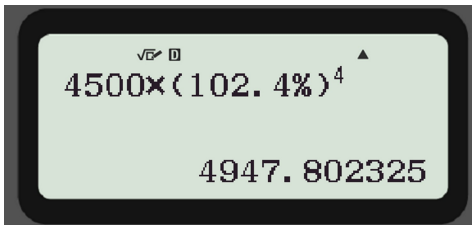
(Total for Question 5 is 3 marks)

9 Giovanni invests 4500 koruna in a savings account for 4 years.
He gets 2.4% per year compound interest.

100 + 2·4 = 102·4%.

↑2·4%.

Work out how much money Giovanni will have in the savings account at the end of 4 years.
Give your answer correct to the nearest koruna.



4948 koruna

(Total for Question 9 is 3 marks)

13 Feruzi invests 80 000 Kenyan shillings (KES)
He invests the money for 3 years at x% compound interest each year.

At the end of 3 years, the total interest he receives is 6151.25 KES

80000 + 6151.25
= 86151.25

Work out the value of x

$80000 \times (100 + x\ \%)^3 = 86151.25$

$(100 + x\ \%)^3 = \frac{86151.25}{80000}$

$(100 + x\ \%)^3 = 1.076\ldots$

$(100 + x\ \%) = \sqrt[3]{1.076\ldots}$

$100 + x\ \% = 1.025$

$\times 100 \qquad \times 100$

$100 + x = 102.5$

$-100 \qquad -100$

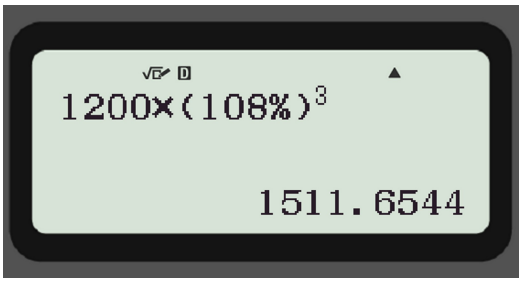
$x = 2.5$

$x =$ 2.5

(Total for Question 13 is 3 marks)

8 Harold bought an antique clock for £1200
The clock increased in value by 8% per year. ↑8%. 100 + 8 = 108%

Find the value of the clock exactly 3 years after Harold bought the clock.
Give your answer correct to the nearest £.



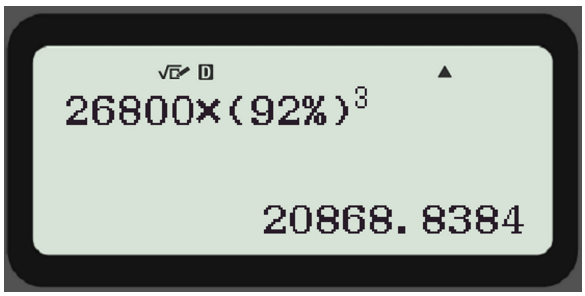
£ 1512

(Total for Question 8 is 3 marks)

7 Hermione buys a boat for $26 800
The value of the boat depreciates by 8% each year.

↓8%. 100 − 8 = 92%

Work out the value of the boat at the end of 3 years.
Give your answer correct to the nearest dollar.



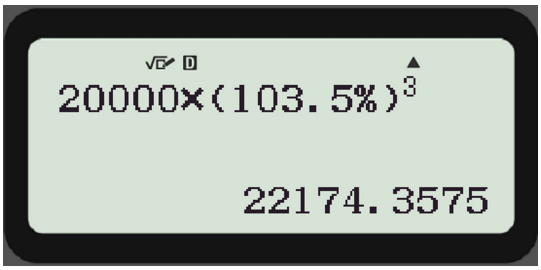
$ 20869

(Total for Question 7 is 3 marks)

9 Nisha invests 20 000 euros for 3 years in a savings account.
She gets 3.5% per year compound interest.

↑3.5%. 100+3.5 = 103.5%

Work out how much money Nisha will have in her savings account at the end of the 3 years.
Give your answer correct to the nearest euro.



22174 ..... euros

(Total for Question 9 is 3 marks)

13 Jan invests \$8000 in a savings account.
The account pays compound interest at a rate of x% per year.

↑ x%. 100 + x

At the end of 6 years, there is a total of \$8877.62 in the account.

Work out the value of x.
Give your answer correct to 2 decimal places.

$8000 \times (100 + x\%)^6 = 8877.62$

$(100 + x\%)^6 = \frac{8877.62}{8000}$

$(100 + x\%)^6 = 1.1097\ldots$

$100 + x\% = \sqrt[6]{1.1097\ldots}$

$100 + x\% = 1.0175\ldots$

×100 ×100

$100 + x = 101.75$

−100 −100

$x =$ 1.75

(Total for Question 13 is 3 marks)

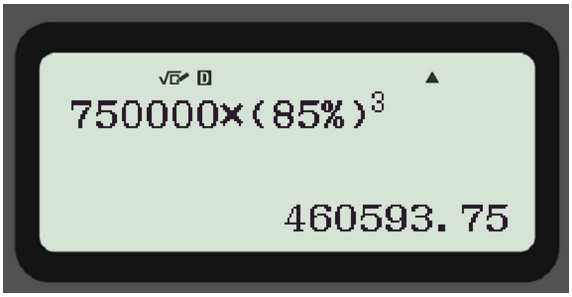
$x = 1.75$

5

Kaito bought a car.
The value of the car when Kaito bought it was 750 000 JPY.
At the end of each year, the value of his car had depreciated by 15%

↓15%.
100 − 15 = 85%.

(b) Work out the value of Kaito's car at the end of 3 years.
Give your answer correct to the nearest JPY.



460594 JPY

(3)

(Total for Question 5 is 6 marks)

7 Ali and Badia each have 25 000 dollars to invest.

Cyclone Bank	Tornado Bank
Invest 25 000 dollars 4.5% compound interest per year for 3 years	Invest 25 000 dollars Receive 1150 dollars interest each year for 3 years

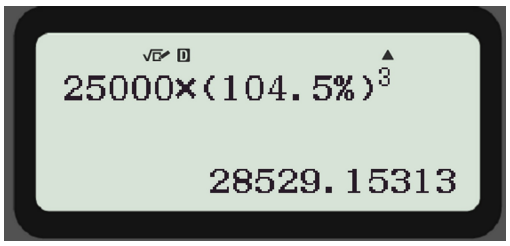
↑4.5%.
100+4.5
=104.5%.

Ali invests in the Cyclone Bank for 3 years.
Badia invests in the Tornado Bank for 3 years.

By the end of the 3 years, Ali will have received more interest than Badia.

How much more?
Show your working clearly.
Give your answer correct to the nearest dollar.

Cyclone



Tornado

25000 + (3 × 1150)

25000 + 3450

= 28450

28529.15 − 28450 = 79.15

79 more

..... dollars

(Total for Question 7 is 4 marks)