Simple and Compound Interest



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1

1) November 2010 V1

9 Johan invested \$600 for 3 years at 4% per year **compound** interest.

Calculate the final amount he had after three years.



2) November 2010 V3

10 Nikhil invests \$200 for 2 years at 4% per year **compound** interest. Calculate the **exact** amount Nikhil has after 2 years.

Answer \$ [2] 3) June 2011 V3 Eva invests \$120 at a rate of 3% per year compound interest. 9 Calculate the total amount Eva has after 2 years. Give your answer correct to 2 decimal places. Answer \$ [3] _____ uuu. Q8 Maths.com

4) November 2011 V3

6 Pedro invested \$800 at a rate of 5% per year **compound** interest. Calculate the **total** amount he has after 2 years.

Answer \$ [2]

5) June 2012 V1

10 Shania invests \$750 at a rate of $2\frac{1}{2}\%$ per year simple interest. Calculate the **total** amount Shania has after 5 years.

11111. 28 Answer \$ [3]

6) June 2012 V3

2 Hans invests \$750 for 8 years at a rate of 2% per year simple interest.

Calculate the interest Hans receives.

Answer \$ [2]

7) June 2012 V3

11 Boris invests \$280 for 2 years at a rate of 3% per year compound interest.

Calculate the interest Boris receives at the end of the 2 years. Give your answer correct to 2 decimal places.

Answer \$ [4]

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5

8) November 2012 V1

8 Acri invested \$500 for 3 years at a rate of 2.8% per year compound interest.

Calculate the final amount he has after 3 years.

Answer \$ [3]

9) November 2012 V3

1 Samantha invests \$600 at a rate of 2% per year simple interest.

Calculate the interest Samantha earns in 8 years.

Answer \$ [2]

10) June 2013 V1

14 Bruce invested \$420 at a rate of 4% per year compound interest.

Calculate the **total** amount Bruce has after 2 years. Give your answer correct to 2 decimal places.

Answer \$ [3]

11) June 2013 V2

13 Carol invests \$6250 at a rate of 2% per year compound interest.

Calculate the total amount Carol has after 3 years.

Answer \$ [3]

12) November 2013 V1

8 Emily invests \$x at a rate of 3% per year simple interest. After 5 years she has \$20.10 interest.

Find the value of x

13) November 2014 V1

7 The population of Dubai at the end of 2012 was 2.1 million. This was predicted to increase at a rate of 6% each year.

Calculate the predicted population of Dubai at the end of 2015.

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Answer million [3]

14) November 2014 V2

17 Alex invests \$200 for 2 years at a rate of 2% per year simple interest. Chris invests \$200 for 2 years at a rate of 2% per year compound interest.

Calculate how much more interest Chris has than Alex.

Answer \$..... [4]

Answer \$.....[3]

15) November 2014 V3

10 Maryah borrows \$12 000 to start a business.The loan is for 3 years at a rate of 5% per year compound interest.The loan has to be paid back at the end of the 3 years.

Calculate the total amount to be paid back.

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16) June 2015 V1

16 Georg invests \$5000 for 14 years at a rate of 2% per year compound interest.

Calculate the interest he receives. Give your answer correct to the nearest dollar.

Answer \$ [4]

17) November 2015 V1

16 Hazel invests \$1800 for 7 years at a rate of 1.5% per year compound interest.

Calculate how much interest she will receive after the 7 years. Give your answer correct to the nearest dollar.

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21) June 2017 V3

24 Marcel invests \$2500 for 3 years at a rate of 1.6% per year simple interest. Jacques invests \$2000 for 3 years at a rate of x% per year compound interest. At the end of the 3 years Marcel and Jacques receive the same amount of interest.

Calculate the value of x correct to 3 significant figures.

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18) November 2015 V2

8 Robert buys a car for \$8000.

At the end of each year the value of the car has decreased by 10% of its value at the beginning of that year.

Calculate the value of the car at the end of 7 years.



19) March 2015 V2

12 The population of Olton is decreasing at a rate of 3% per year. In 2013, the population was 50000.

Calculate the population after 4 years. Give your answer correct to the nearest hundred.

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20) June 2016 V2

- **19** It is estimated that the world's population is growing at a rate of 1.14% per year. On January 1st 2014 the population was 7.23 billion.
 - (a) Find the expected population on January 1st 2020.

(b) Find the year when the population is expected to reach 10 billion.

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......billion [2]

......[2]

21) June 2016 V3

- **19** At the start of an experiment there are 20000 bacteria The number of bacteria increases at a rate of 30% per hour.
 - (a) Work out the number of bacteria after 4 hours.

- (b) After how many whole hours, from the start of the experiment, will the number of bacteria be greater than one million?

hours [2]

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