

Interest

File RN4-9 For further resources click M1Maths.com

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| <ol style="list-style-type: none">1. Write the formula for simple interest2. Use the formula to find I when $P = \\$500$, $R = 8\%$ p.a. and $T = 6$ years3. Use the formula to find T when $P = \\$4000$, $R = 5\%$ and $I = \\$1800$4. If I invest \$800 for 5 years at 4.5% simple interest, how much interest will I get?5. I borrow \$2000 and pay it back after $2\frac{1}{2}$ years. If the simple interest rate is 12% p.a., how much would I have to pay back (including principal and interest)6. I can invest money in the Rain Depression Bank for 4 years at 7% p.a. simple interest. How much should I invest if I want to get \$800 interest? | <ol style="list-style-type: none">7. Write the formula for compound interest8. Use the formula to find the amount I would have at the end if I invested \$750 for 8 years compounding annually at 11% p.a.9. Rupert borrowed some money from the Mafia and paid it back with interest 8 years later. They charged him 30% p.a. compounding yearly. If he had to pay back \$14 756, how much did he borrow?10. If Stumples invested \$3000 at 8% p.a. interest compounding monthly, how much would he have in the bank after 5 years.11. Which is better, 8% p.a. interest compounding yearly or 7.5% compounding monthly? |
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Revision Sheet – Interest

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| <p>1. Find the simple interest on \$4000 borrowed for 6 years at 8% p.a. interest. [\$1920]</p> <p>2. How much would I have to invest at 6% p.a. simple interest to get \$300 interest in 10 years? [\$500]</p> <p>3. How long would it take \$2000 to increase to \$2400 at 4% p.a. simple interest? [5 y]</p> <p>4. I invested \$500 for 4 years and got \$60 interest. What was the simple interest rate? [3%]</p> | <p>5. If I invest \$50 000 at 8% p.a. compound interest, how much would I have after 15 years? [\$158 608.46]</p> <p>6. How much would I have to invest at 10% p.a. compound interest to end up with \$4500 after 10 years? [\$1734.95]</p> <p>7. I borrowed \$300 000 to buy a house. The interest rate was 7.5% p.a. compounding monthly. If I paid it off 24 months later, how much would I have to pay? [\$348 387.60]</p> |
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Challenge: I invested \$8000 at 5.75% interest compounding quarterly. My mother also invested \$8000, but at simple interest. At the end of 8½ years, we had both received the same amount of interest. What interest rate did my mother get? [7.35%] Show working on back of sheet.