

Name \_\_\_\_\_

# **Maths Studies AQA Level 3 Course**

## **Transition Unit on Percentages**

**Hand in to your maths studies teacher in September**

**Please mark your work using the answers provided**

### **PERCENTAGES REMINDER 1**

- 1) Calculate 15% of £25
- 2) Jack sees a book with an original price of £12 but marked 20% off. How much will Jack save?
- 3) Jane is looking through the Argos catalogue. She sees a pair of earrings originally priced at £87.99 but marked 25% off. How much will she pay for the earrings?
- 4) Max buys a new car for £12000. Given that cars lose 15% of their value every year, how much will the car be worth after 3 years?
- 5) Olivia puts £1500 in savings account which pays 3% interest per year. How much will she have after 5 years?
- 6) A javelin thrower achieves a distance of 57.8m on round one. In round two she improves her throw and it travels 8% farther. How long is her second throw?
- 7) Following an economic downturn, wages in a factory are reduced by 3.5%. An employee was being paid £355 per week. What is their new weekly wage?
- 8) Turnout at a local election is 34%. There are 5,327 voters on the electoral roll. How many people voted?

## **PERCENTAGES REMINDER 2**

- 9) A pupil gets 6 out of 10 in a mental arithmetic test. What is this score as a percentage?
- 10) In a longer test, the same pupil gets 43 out of 50. What is their percentage score now?
- 11) A test is marked out of 22. A pupil scores 16 marks. What is this score as a percentage (to the nearest whole number)?
- 12) Prices in a sale are reduced by 20%. The sale price of an item is £16, what was its price before the sale?
- 13) Following a pay rise of 10%, a store manager earns £33 000. What was their salary before getting a raise?
- 14) A bicycle is purchased for £250. Two years later it is sold for £150. By what percentage has the value fallen?
- 15) A flat is purchased for £200 000, three years later it is sold for £260 000. By what percentage has its value increased?
- 16) A car is purchased for £21 000. Two years later it is sold for £13 440. On average, by what percentage has its value fallen each year (note: this is called the *depreciation rate*)?
- 17) A rose measures 15cm in height. 2 weeks later it measures 18.15cm in height. What is its *average daily growth* expressed as a percentage?
- 18) A diamond ring is bought for £2000. 3 years later it is valued at £3000. Assuming its value rose by the same percentage each year, what was the annual percentage increase in value?

## **PERCENTAGES REMINDER 1 - ANSWERS**

1. £3.75
2. £2.40
3. £65.99
4. £7369.50
5. £1738.91
6. 62.42m (to nearest cm)
7. £342.58 (to nearest 1p)
8. 1811

## **PERCENTAGES REMINDER 2 - ANSWERS**

9. **60%**
10. **86%**
11. **73%**
12. **£20**
13. **£30 000**
14. **40%**
15. **30%**
16. **20% per annum**
17. **10% per week**
18. **14% per year** ( to nearest whole number)

