

**Calculators may be used for all questions with the exception of question 3. All working must be shown.**

**Unit level:**

1. (a) A rectangle has length  $2\frac{7}{10}$  cm and breadth  $1\frac{3}{4}$  cm.  
Calculate its exact **area**.
- (b) A rectangle has **Perimeter**  $5\frac{3}{4}$  cm.  
If its breadth is  $1\frac{2}{3}$  cm then calculate its exact length.
- (c) A rectangle has **Area**  $6\frac{1}{4}$  cm<sup>2</sup>.  
If its breadth is  $1\frac{6}{7}$  cm then calculate its exact length.
2. (a) A Laptop is discounted by 18% in a sale.  
If the sale price is £344.40, what was the original price?
- (b) A car bought for £8700 depreciates at 6% per annum.  
What will the car be worth in 4 years time?  
(Round your answer to the nearest penny)

**Assessment level:**

3. (a)  $1\frac{5}{6} \div \frac{3}{7}$     (b)  $5\frac{2}{3} \times \frac{3}{5}$     (c)  $\frac{2}{7} \left(1\frac{3}{4} + \frac{3}{8}\right)$     (d)  $6\frac{1}{3} - 2\frac{1}{2}$



4. Alistair buys a diamond ring for £600 in 2020. It is expected to rise in value at the rate of 4.5% each year. How much will the ring be worth in 2024?
5. The price for Paul's summer holiday is £894.40. This price includes a 2.5% booking fee. What is the price of his holiday without the booking fee? (Round your answer to the nearest penny)
6. A company makes large bags of crisps which contain 90g of fat. They aim to reduce the fat content of the crisps by 50%. They decide to reduce the fat content by 20% each year. Will they have achieved their aim by the end of the 3rd year?  
**Justify your answer.**
7. Last year, 1296 learner drivers from "Topflight" school of motoring passed their driving test. This was 72% of those who sat their driving test from Topflight.  
How many **failed** their driving test?