

VIOLET A

1) Find  $5\frac{3}{5}$  of 1.444

2)  $1\frac{4}{11} \times 1\frac{11}{13} \times 2\frac{3}{8}$

3) Billy puts £3000 into a bank that pays 2% compound interest per annum. How much interest will Billy have after 2 years?

4) *You may use a calculator for this question.*

In a 14% off sale, a dress now costs £387. What was its original cost?

5) The number of roots of a quadratic equation is determined by the formula  $d = b^2 - 4ac$ . The equation has 2 roots if  $d$  is positive, 1 if  $d$  is zero, and none if  $d$  is negative.

Find  $d$  for the equation

$$2x^2 + 5x + 7 = 0$$
$$(a = 2, b = 5, c = 7)$$

Hence determine the number of roots of the equation.

6) *You may use a calculator for this question*

Barry sells a car for £2100. He bought it 4 years ago. During the first two years, its value decreased by 10% of the value at the start of the year.

During the second two years, its value decreased by 20% of its value at the start of the year.

How much did Barry pay for the car?

Give your answer to the nearest £10.