



**Maths
Junior Certificate
Higher Level**

**Past Exam Questions on
Approximations/Calculator**

Q1 Part (c) 2012 Paper 1

- (c) (i) ✎ By rounding to the nearest whole number, estimate the value of

$$\frac{3.89 \times 7.24 - \sqrt{8.94}}{8.52 - 3.65}.$$

- (ii) ✎ Evaluate $\frac{3.89 \times 7.24 - \sqrt{8.94}}{8.52 - 3.65}$, correct to two decimal places.

- (iii) ✎ Simplify $\sqrt{5}(\sqrt{2} + \sqrt{5}) - \sqrt{8}(\sqrt{2} - \sqrt{5})$ without the use of a calculator.

Express your answer in the form $a + b\sqrt{c}$, where $a, b, c \in \mathbb{N}$.

Q1 2008 Part (b) Paper 1

- (b) (i) ✎ Wendy estimates the value of $527 + 889 + 436$ by rounding each number to the nearest hundred.
Find the estimated value.

Q1 Part (c) 2006 Paper 1

- (c) (i) ✎ By rounding to the nearest whole number, estimate the value of

$$\frac{\sqrt{42.91 + 21.3}}{17.56 - 3.7 \times 4.2}.$$

Then, evaluate $\frac{\sqrt{42.91 + 21.3}}{17.56 - 3.7 \times 4.2}$, correct to two decimal places.

Q2 Part (a) 2005 Paper 1

2. (a) (i) Write down the reciprocal of $\frac{7}{2}$.
(ii) Find the value of this reciprocal, correct to 2 decimal places.