Rational Numbers, Decimals and Percentages Revision:

Question 4: Rational Numbers:

(a) Change $\frac{27}{4}$ into a mixed fraction.

(b) Change $3\frac{1}{4}$ into an improper fraction.

(c) Show that $\frac{1}{4} + \frac{3}{5} = \frac{17}{20}$.

(d) Show that $\frac{1}{2} \div \frac{2}{3} = \frac{3}{4}$.

(e) Write down three fractions that are equivalent to $\frac{3}{4}$. 

Question 5: Decimals

(a) Write down the value of the underlined digit as a fraction.

(i) 2.775
(ii) 1.318
(iii) 30.01

(b) Round each of the following:

<table>
<thead>
<tr>
<th>Number</th>
<th>Correct to the nearest whole number</th>
<th>Correct to two decimal places</th>
<th>Correct to one significant figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. 3.234</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. 0.677</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. 163.391</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. 88.555</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(c) (i)

By rounding each of these numbers to the nearest whole number, estimate the value of \( \frac{5.8 \times 8.148}{11.64} \).

(c) (ii)

Using a calculator, or otherwise, find the exact value of \( \frac{5.8 \times 8.148}{11.64} \).
Question 6: Percentages:

(a)

Match the percentages given with the correct letter on the number line.

(b)

Write each percentage as a fraction:

(i) 30%
(ii) 23%
(iii) 67.5%

Write the following as percentages:

(i) 0.34
(ii) 0.125
(iii) \( \frac{15}{24} \)
(iv) \( \frac{9}{10} \)

(c) Evaluate:

(i) Find 45% of €360.
(ii) Find 33% of 900mm
(iii) Find 97% of 510g
(iv) Find 11.7% of 1450m

(d)

i. If 20% of a number is 15, find the number.
ii. If 14% of a number is 21, find the number.