1) Work out \( \frac{3}{5} - \frac{1}{6} \).

2) a) Express 0.00254 in standard form.
   b) Write 3.56 \times 10^5 in ordinary form.
   c) Work out 
   \[(2.4 \times 10^5) + (1.23 \times 10^4)\]
   Express your answer in standard form.

3) a) Express \( 0.00254 \) in standard form.
   b) Write 3.56 \times 10^5 in ordinary form.
   c) Work out 2.4 \times 10^5 + (1.23 \times 10^4)
   Express your answer in standard form.

4) Solve \( 3x^2 - 2x - 8 = 0 \).

5) Find the Missing angle \( \times \).

6) Expand and Simplify
   \[4(x - 9) - 2(x - 7)\]

7) On holiday there are two companies offering an excursion to the mountains. Which company is cheaper?

<table>
<thead>
<tr>
<th>Weight (Kg)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 &lt; w ≤ 80</td>
<td>11</td>
</tr>
<tr>
<td>80 &lt; w ≤ 90</td>
<td>16</td>
</tr>
<tr>
<td>90 &lt; w ≤ 110</td>
<td>19</td>
</tr>
<tr>
<td>110 &lt; w ≤ 120</td>
<td>14</td>
</tr>
</tbody>
</table>

8) Express \( x^2 + 8x + 20 \) in the form \( (x + p)^2 + q \).

9) Express 0.345 as a fraction.

10) There are 200 students in year 11. 23 out of 74 boys bike to school. Out of the 82 students who walk to school 64 are girls. 43 female students get the bus. How many students get the bus?

11) Simplify \( \frac{2x^2 + 4x}{x^2 + 6x + 8} \).

12) List two criticisms of the questionnaire.

<table>
<thead>
<tr>
<th>Your favourite football team is Middlesbrough isn’t it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

13) Describe the transformation of A to B.

14) Find the size of angle \( x \).

15) Calculate the size of angle \( x \).

16) What is the equation of the line perpendicular to \( y = 6 - 3x \) which passes through the point (12, 18).

Challenge

M is a midpoint of the line \( OA \) and N is a midpoint of the line \( OB \).

Prove that \( MN \) is parallel to \( AB \).