CALCULATING ANGLES

**TASK 1**

**Angles about a point**

Without using a protractor, find the size of the marked angles using the sum of the angles about a point.

![Diagram](image)

**TASK 2**

**Vertically opposite angles**

Without using a protractor, find the size of the marked angles using vertically opposite angles.

![Diagram](image)
**TASK 3**

**Angles that form a straight angle**

Without using a protractor, find the size of the marked angles using the sum of the angles that form a straight angle.

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Angle Diagram" /></td>
<td><img src="image2.png" alt="Angle Diagram" /></td>
<td><img src="image3.png" alt="Angle Diagram" /></td>
</tr>
</tbody>
</table>

What do you notice about the angle outside the triangle and the two acute angles inside?

**TASK 4**

**Mixing them up**

A letter can be used to stand for the size of the angle. In each of these diagrams, find the number that each different letter represents.

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<tr>
<th>a</th>
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</thead>
<tbody>
<tr>
<td><img src="image4.png" alt="Angle Diagram" /></td>
<td><img src="image5.png" alt="Angle Diagram" /></td>
<td><img src="image6.png" alt="Angle Diagram" /></td>
</tr>
</tbody>
</table>

ABCD is a rectangle and the lines are diagonals of that rectangle.