1. The length of a flowerbed is 4 times as long as its width. If the width is \( \frac{3}{8} \) meter, what is the area?

Width \( \square \frac{3}{8} \) m

Length \( \square \frac{3}{8} \) m

\( \frac{12}{8} = \frac{1}{4} = 1 \frac{1}{2} \) m

Area: \( l \times w \)

\( \frac{1}{2} \times \frac{3}{8} = \left(1 \times \frac{3}{8}\right) + \left(\frac{1}{2} \times \frac{3}{8}\right) \)

\( = \frac{3}{8} + \frac{3}{16} = \frac{6}{16} + \frac{3}{16} = \frac{9}{16} \) m²

The area is \( \frac{9}{16} \) m².

2. Mrs. Johnson grows herbs in square plots. Her basil plot measures \( \frac{5}{8} \) yd on each side.

a. Find the total area of the basil plot.

\( \frac{5}{8} \times \frac{5}{8} = \frac{25}{64} \)

The area of basil is \( \frac{25}{64} \) yd².

b. Mrs. Johnson puts a fence around the basil. If the fence is 2 ft from the edge of the garden on each side, what is the perimeter of the fence?

\( \frac{5}{8} \) yd = \( \frac{5}{8} \times 1 \) yd

\( = \frac{5}{8} \times 3 \) ft

\( = \frac{15}{8} \) ft

\( = 1 \frac{7}{8} \) ft

Perimeter: \( 5 \frac{5}{8} \times 4 \)

\( = (5 \times 4) + \left(\frac{5}{8} \times 4\right) \)

\( = 20 + \frac{1}{2} = 20 + 3 \frac{1}{2} = 23 \frac{1}{2} \) ft

The perimeter of the fence is 23 \( \frac{1}{2} \) ft.
c. What is the total area that the fence encloses?

\[
\text{Area: } 5\frac{7}{8} \times 5\frac{7}{8} \\
= (5 \times 5) + (5 \times \frac{7}{8}) + (\frac{7}{8} \times 5) + (\frac{7}{8} \times \frac{7}{8}) \\
= 25 + \frac{35}{8} + \frac{35}{8} + \frac{49}{64} \\
= 25 + 4\frac{3}{8} + 4\frac{3}{8} + \frac{49}{64} \approx 25 + 8\frac{1}{8} + \frac{49}{64} \\
\text{The area of the total land is } 33\frac{9}{64} \text{ ft}^2.
\]

3. Janet bought 5 yards of fabric 2\frac{2}{3} feet wide to make curtains. She used \frac{2}{3} of the fabric to make a long set of curtains and the rest to make 4 short sets.

a. Find the area of the fabric she used for the long set of curtains.

Fabric

<table>
<thead>
<tr>
<th>Fabric Length</th>
<th>Fabric Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ft</td>
<td>15 ft</td>
</tr>
<tr>
<td>L set</td>
<td>Short Short sh. sh.</td>
</tr>
<tr>
<td>5 ft</td>
<td>A = ?</td>
</tr>
<tr>
<td>2\frac{2}{3} ft</td>
<td>A = ?</td>
</tr>
</tbody>
</table>

\[
\text{The area of fabric used for the long set is } 11\frac{1}{4} \text{ ft}^2.
\]

b. Find the area of the fabric she used for each of the short sets.

\[
5 \text{ ft} \div 2 = 2\frac{1}{2} \text{ ft} \\
2\frac{1}{2} \text{ ft} | A = ? |
\]

\[
A = 2\frac{1}{2} \times 2\frac{2}{3} \\
= (2 \times 2) + (2 \times \frac{2}{3}) + (\frac{1}{2} \times 2) + (\frac{1}{2} \times \frac{2}{3}) \\
= 4 + \frac{4}{3} + \frac{1}{2} + \frac{1}{6} \\
= 4 + 1 + \frac{1}{2} + \frac{1}{6} \\
= 5 + \frac{4}{6} + \frac{1}{6} \\
= 5\frac{5}{6} \text{ ft}^2
\]

\[
\text{The area of fabric used for the short set is } 5\frac{5}{6} \text{ ft}^2.
\]
4. Some wire is used to make 3 rectangles: A, B, and C. Rectangle B’s dimensions are $\frac{3}{5}$ cm larger than Rectangle A’s dimensions, and Rectangle C’s dimensions are $\frac{3}{5}$ cm larger than Rectangle B’s dimensions. Rectangle A is 2 cm by $3\frac{1}{5}$ cm.

a. What is the total area of all three rectangles?

$$
\text{Total Area: } 6\frac{2}{5} + 9\frac{22}{25} + 14\frac{2}{5} \\
= 29\frac{10}{25} + 22\frac{22}{25} + 2\frac{2}{25} \\
= 29 + 3\frac{2}{25} = 30\frac{2}{25} \\
The \text{ total area is } 30\frac{2}{25} \text{ cm}^2.
$$

b. If a 40 cm coil of wire was used to form the rectangles, how much wire is left?

**Perimeter:**

A: $3\frac{1}{5} + 3\frac{1}{5} + 2 + 2$

$= 6\frac{2}{5} + 4 = 10\frac{2}{5} \text{ cm}$

B: $2\frac{3}{5} + 2\frac{3}{5} + 3\frac{4}{5} + 3\frac{4}{5}$

$= 10\frac{14}{5} = 12\frac{4}{5} \text{ cm}$

C: $3\frac{1}{5} + 3\frac{1}{5} + 4\frac{2}{5} + 4\frac{2}{5}$

$= 14\frac{4}{5} = 15\frac{1}{5} \text{ cm}$

Total Perimeter:

$10\frac{2}{5} + 12\frac{4}{5} + 15\frac{1}{5}$

$= 37\frac{1}{5} = 38\frac{1}{5} \text{ cm}$

$40 \text{ cm} - 38\frac{1}{5} \text{ cm}$

$= 1\frac{3}{5} \text{ cm}$

There will be $1\frac{3}{5}$ cm of wire left.