Photos

This problem gives you the chance to:
• show understanding of spatial relationships

The ‘aspect ratio’ of a picture is the ratio of its width to its height.

1. Which of the following are correct expressions for the aspect ratio for this 8 inch by 12 inch baby photo?

Draw rings around all of the correct ratios.

\[
\begin{array}{cccc}
8:12 & 12:8 & 4:6 & 2:3 \\
3:2 & 1:1.5 & 16:24 & 24:36 \\
\end{array}
\]

2. When the length and width of the photo are halved, four photos fit onto the 8 inch by 12 inch page. The aspect ratio is still the same.

a. What are the new measurements of the photo?

____________________

b. Jane wants 75 copies of this size of the photo for Christmas cards. How many 8 inch by 12 inch pages does she need?

____________________

Show your work.
3. For use on key chains, the photo is reduced to a width of 1 inch, keeping the aspect ratio the same.
   a. What is the height of the photo? _________________________________
   b. How many of the photos will fit onto one 8 inch by 12 inch page?
      __________________

4. Explain how to calculate the number of photos that will fit on one page if you know the width of the photo.
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________
**Photos**

The core elements of performance required by this task are:
- show understanding of spatial relationships

Based on these, credit for specific aspects of performance should be assigned as follows

<table>
<thead>
<tr>
<th></th>
<th>points</th>
<th>section points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gives correct answers: 8:12 4:6 2:3 1:1.5 16:24 24:36 with no extras</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Partial credit</td>
<td>(2)</td>
<td>(1) 3</td>
</tr>
<tr>
<td>4 or 5 correct with no extras or 6 correct and 1 extra</td>
<td></td>
<td></td>
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<tr>
<td>3 or 2 correct with no extras or 4/5 correct and 1 extra</td>
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<tr>
<td>2.a. Gives correct answer: 4 inches by 6 inches</td>
<td>1</td>
<td></td>
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<tr>
<td>b. Gives correct answer: 19</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3.a. Gives correct answer: 1.5 inches</td>
<td>1</td>
<td></td>
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<tr>
<td>b. Gives correct answer: 64</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Gives correct explanation such as: Find how many times the width goes into 8 inches and square that number.</td>
<td>2</td>
<td></td>
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<tr>
<td>Or</td>
<td>or</td>
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<tr>
<td>Find how many times the width goes into 8 inches and multiply by how many times the height of the photo goes into 12.</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Total Points</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

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Grade 8
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