



c.  $t = t_1 + t_2 + t_3 + t_4 + t_5 + t_6 + t_7 + t_8 + t_9 + t_{10}$



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	<p>!</p> <ul style="list-style-type: none"> <li>• 2 ! "#</li> <li>• : "# ! !</li> <li>• # "# ! ! !</li> <li>!</li> <li>• 4 ' # ! ! !</li> <li>!</li> <li>• 5 , 0 0 0</li> <li>"#</li> </ul>	<ul style="list-style-type: none"> <li>• 5 # ! A</li> <li>8* % 9</li> <li>• G 2 H # \$</li> <li>! () * ) &gt; (-</li> <li>+ ,(- *! ) &gt; (-</li> </ul>
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	<p>!</p> <ul style="list-style-type: none"> <li>• /! ! #</li> <li>• * ! !</li> <li>!</li> <li>• 5 ! ! ' ' #</li> <li>• % # !# !</li> </ul>	<ul style="list-style-type: none"> <li>• 5 # ! A</li> <li>8B 9</li> </ul>

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$$\frac{x}{5} = \frac{12}{15}$$

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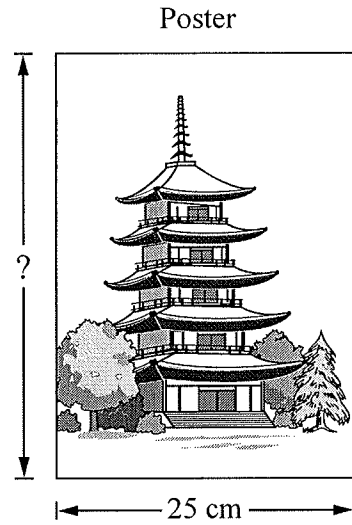
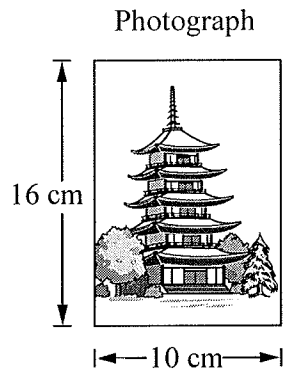
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## The Poster

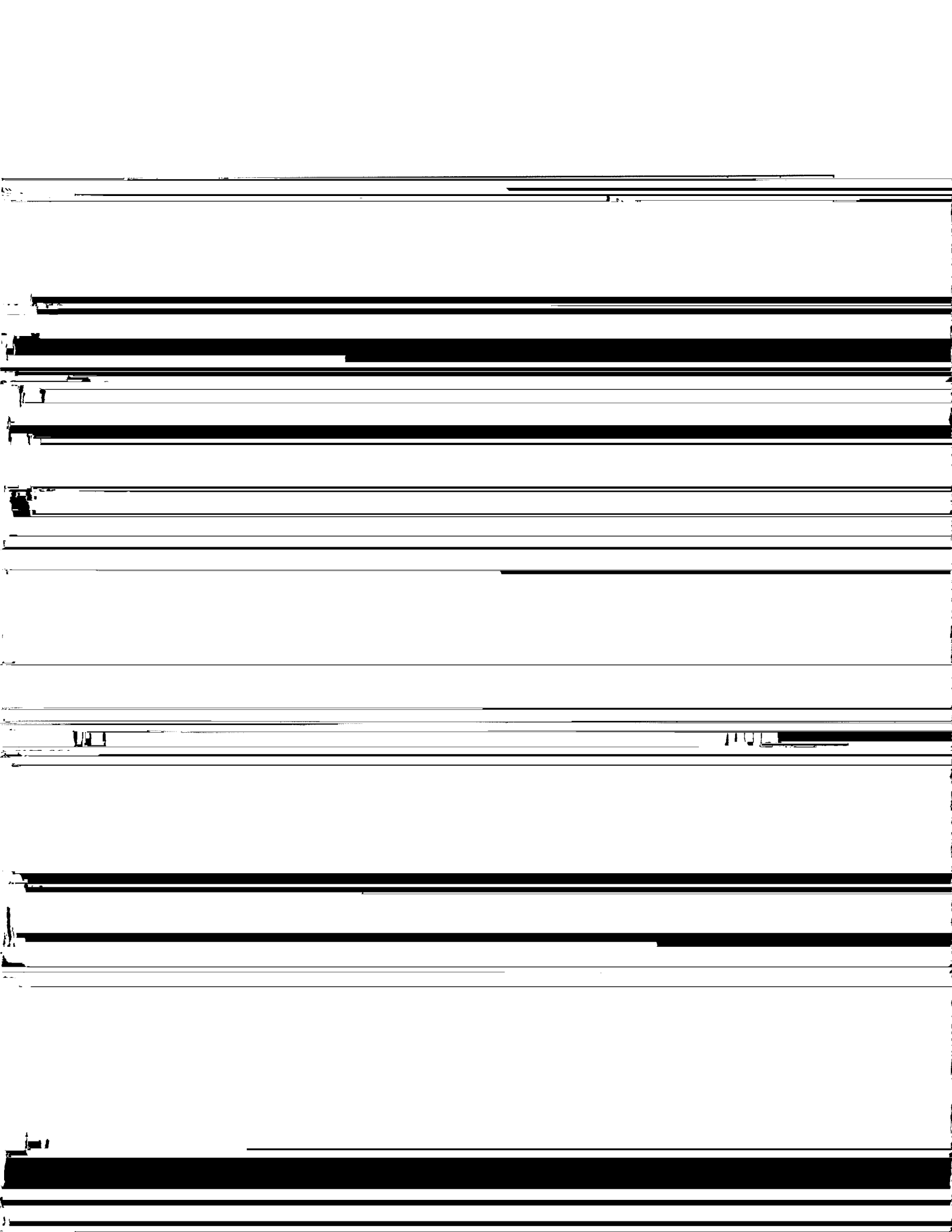
This problem gives you the chance to:

- calculate sizes in an enlargement



1. A photograph is enlarged to make a poster.  
The photograph is 10 cm wide and 16 cm high.  
The poster is 25 cm wide. How high is the poster?

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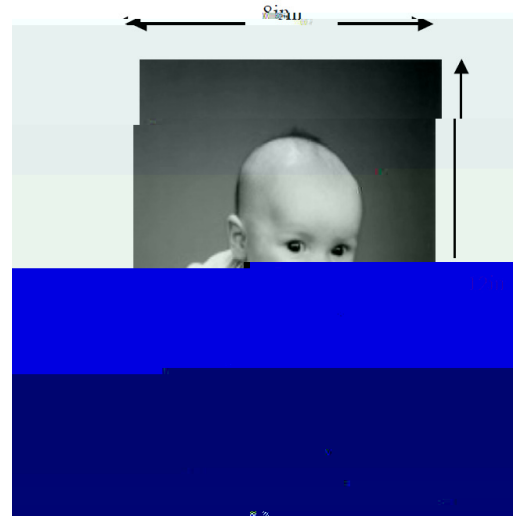
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## Photos

The aspect ratio



3. To use the photo on a key chain, the photo is reduced to a width of 1 inch, keeping the aspect ratio the same.
- What is the height of the photo used for key chains?
  - Show and explain two different ways to find this height.
  - What is the maximum number of key chain size photos that will fit on the 8-inch by 12-inch page?
  - How do you know that this is the maximum number of photos? Write a convincing argument for your answer.

4. You can draw rectangles on a coordinate plane to represent the size of possible photos. The width and height of the photo can be represented using ordered pairs

5.
  - a. Determine three additional photo sizes that have the same aspect ratio as those in question 4a.
  
  
  
  
  
  
  
  
  
  
  - b. Predict how many additional rectangles could be drawn on the graph to represent photos with the same aspect ratio as those in question 4a. Explain your reasoning.
  
  
  
  
  
  
  
  
  
  
6. Most digital cameras capture images that are 600 pixels in width and 800 pixels in height.
  - a. What is the aspect ratio of a typical digital camera image?
  
  
  
  
  
  
  
  
  
  
  - b. When you order 4-inch by 6-inch prints of photos taken on a digital camera, the original images are often cropped. This means that parts along the edges of the original images are not included in the printed photos. Use aspect ratios to explain why this occurs.
  
  
  
  
  
  
  
  
  
  
  - c. What percent of the area of the original digital image is cropped to create a 4-inch by 6-inch print?



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