

Photographs

T1

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

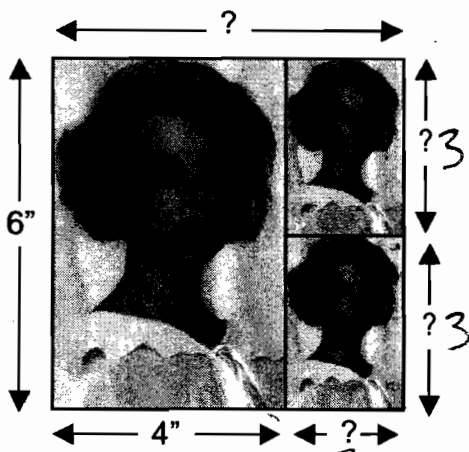


Diagram 1

$$6 \div 3 = 4 \div 2$$

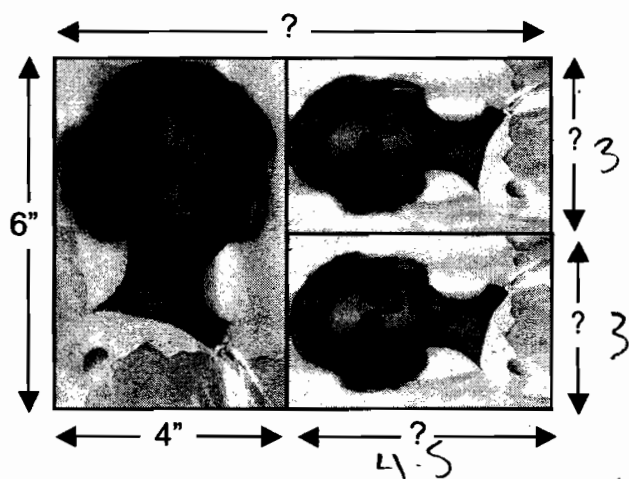


Diagram 2

$$\frac{4}{3} = \frac{6}{x}$$

$$4 \cdot 3 = 6x$$

$$\frac{12}{4} = \frac{6x}{4}$$

$$3 = 1.5x$$

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

$$6 \div 2 = 3$$

For diagram 1 the height is 6 for the regular photo so each other one has to be 3 inches high and the smaller photo has a decreasement ratio of about $\frac{3}{6}$ so it would be half wide so it is 2 inches wide.

T1

Diagram 2

For diagram 2 the height for the big picture is 6 so the smaller pictures are 3 inches wide. The decreasement ratio for width is $\frac{4}{3}$ so the height would be 4.5 inches.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

Diagram 2

The measurements of the sheet of paper are 8.5 wide and 6 high.

8

8

Photographs

T2

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

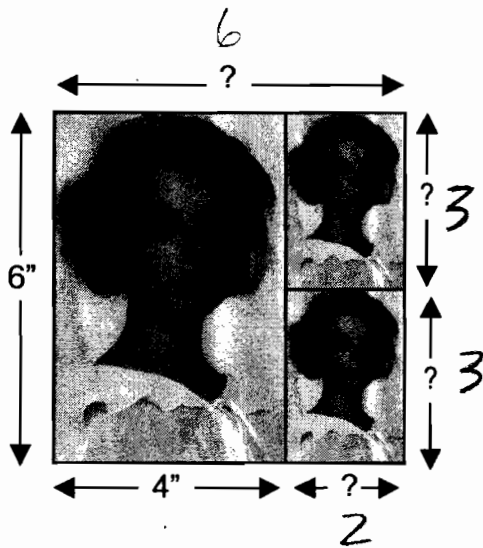


Diagram 1

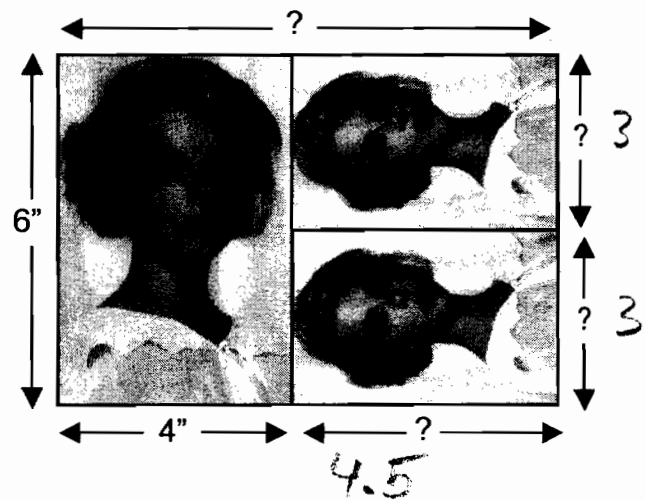


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

I knew half of 6 is 3
 diagram looked square. so it to be 2 wide

1
0
1

T2

Diagram 2

The width of each small photo would be $3'' (6 \div 2)$ ✓
and the height would be $4.5''$ because in
order to keep the shapes similar that would
be the dimensions.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are $6''$ wide and $6''$ high. ✓

Diagram 2

The measurements of the sheet of paper are $8.5''$ wide and $6''$ high. ✓

8

7

Photographs

T3

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

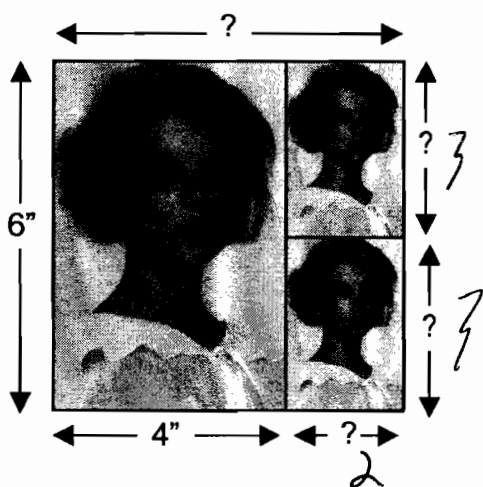


Diagram 1

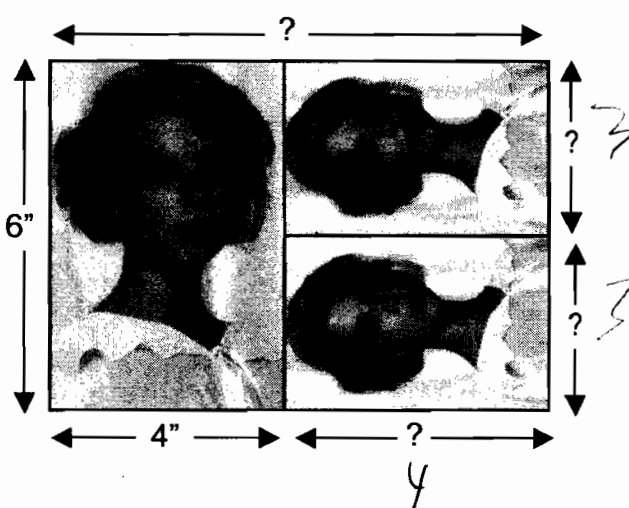


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

I did scale factoring first I did half of 6 ✓ for the sides & half of 4 for the bottom ✓

T3

Diagram 2

I did scale folding
I did half of 6 for the ✓ 1
sides + half of 8 for 0
the bottom. x 0

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high. ✓ 1

Diagram 2

The measurements of the sheet of paper are 8^x wide and 6 high. 0

8 5

Photographs

T4

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

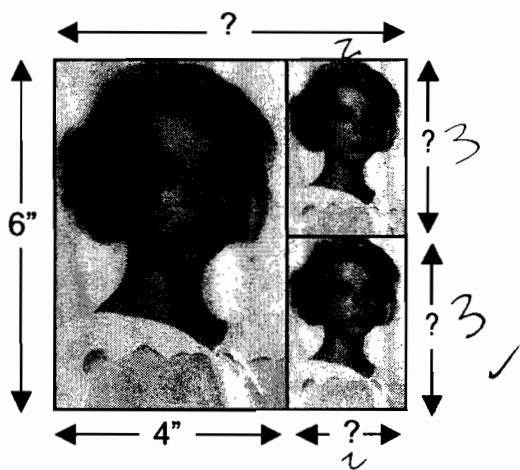


Diagram 1

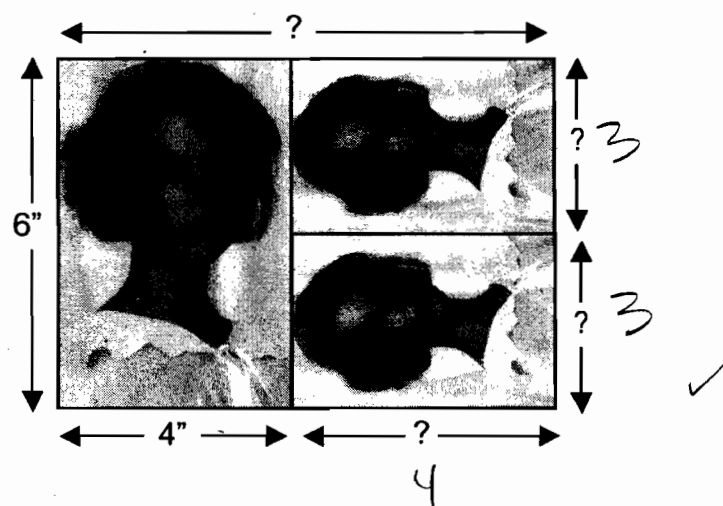


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

The smaller photos are 2" by 3" because two of them fit into the 6" side, making one side 3". The full 3 photos is a square, so $6 - 4 = 2$. 2" for the other side of the small photos.

T4

Diagram 2

3" by 4". I know that the width has to be 3 because it is half of the other side. The height looked about the same as the width of the larger photo, so that side is 4".

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6" wide and 6" high.

Diagram 2

The measurements of the sheet of paper are 8" wide and 6" high.

8 (4)

Photographs

T5

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

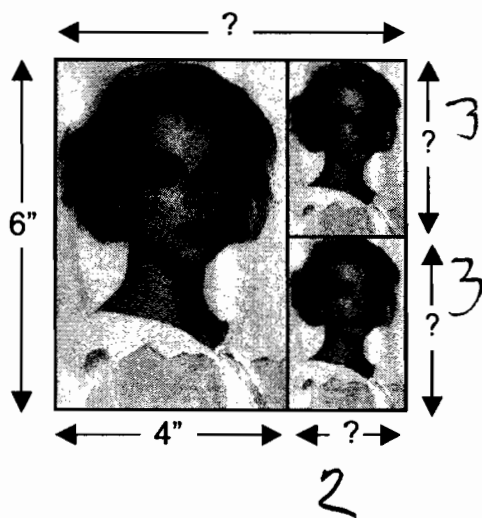


Diagram 1

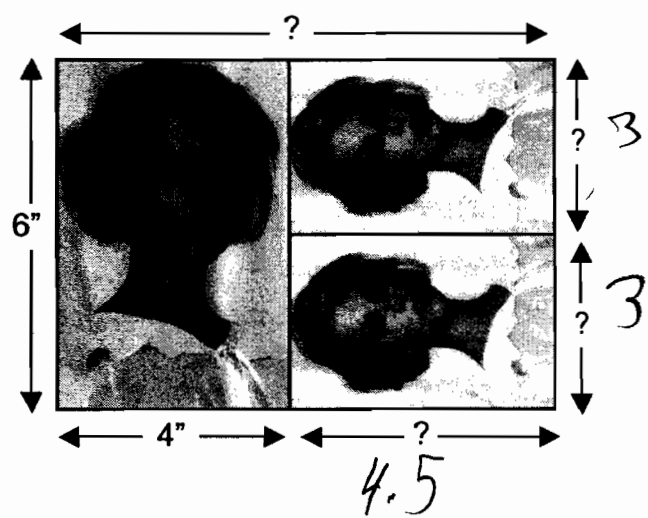


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

$$6 \div 2 = 3 \quad 4 \div 2 = 2, \quad 3 \times 2 = 6,$$

$\frac{6}{4} = 2\frac{2}{3}$

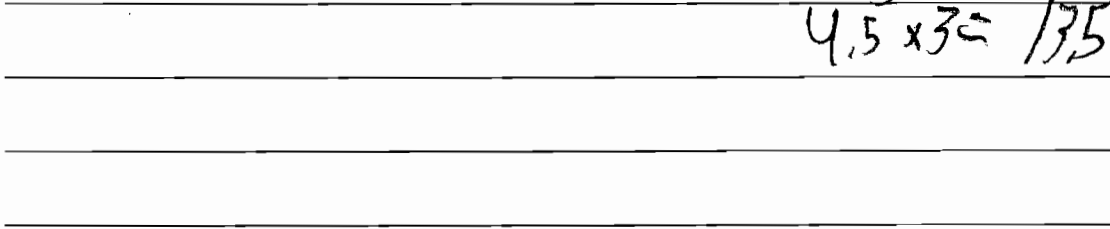
Diagram 2

$6 \div 2 = 3$ ✓

$3 = \frac{2}{3}$

$3 \div 2 = 1.5 \times 3 = 4.5$ ✓

$4.5 \times 3 = 13.5$ fw



13.5

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

6" ✓

6" ✓

The measurements of the sheet of paper are _____ wide and _____ high.

Diagram 2

8.5 ✓

6 ✓

The measurements of the sheet of paper are _____ wide and _____ high.

Photographs

S1

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

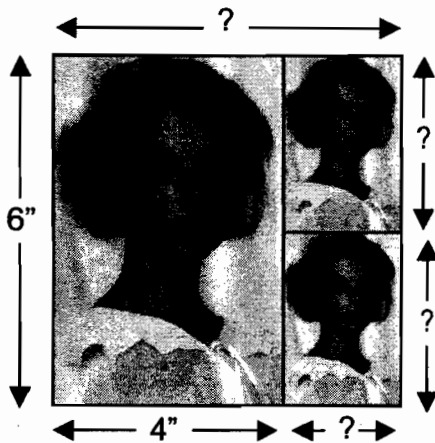


Diagram 1

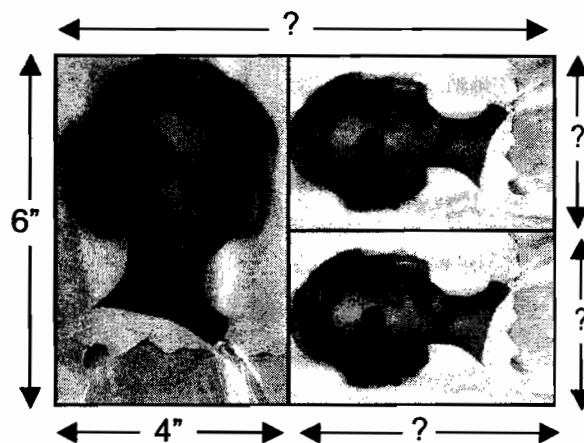


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

$\frac{6}{4} = \frac{3}{2}$ ✓, so the measurements for the 2 smaller pictures are 3x2 because their right side is 3", so the only correct proportion would be 3x2.

S1

Diagram 2

✓
Their bases are equal to $6 \div 2$, so they have a base of 3". The proportion to the first photo is $\frac{6}{9}$, and $\frac{6}{4} = \frac{x}{3}$. $x = 4.5$, meaning the small picture's dimensions are 4.5 x 3.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 in. wide and 6 in. high. ✓

Diagram 2

The measurements of the sheet of paper are 6 in. wide and 8.5 in. high. ✓

8

8

Photographs

S2

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

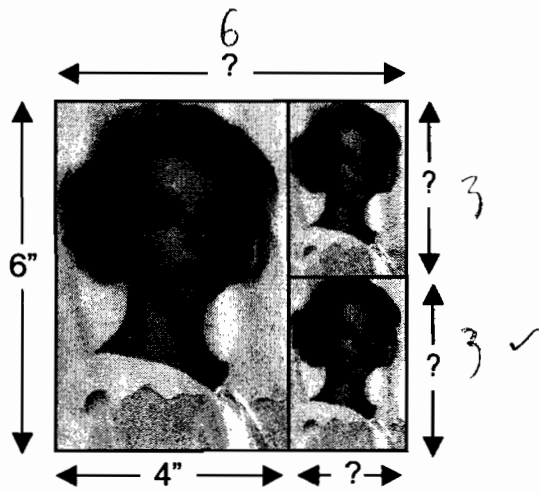


Diagram 1 ✓

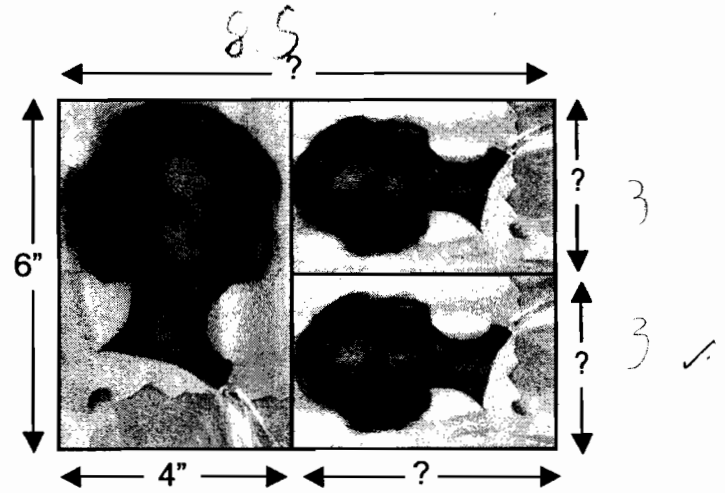


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

I used scale factor

Diagram 2

I used scale factor

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

Diagram 2

The measurements of the sheet of paper are 8.5 wide and 6 high.

Photographs

S3

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

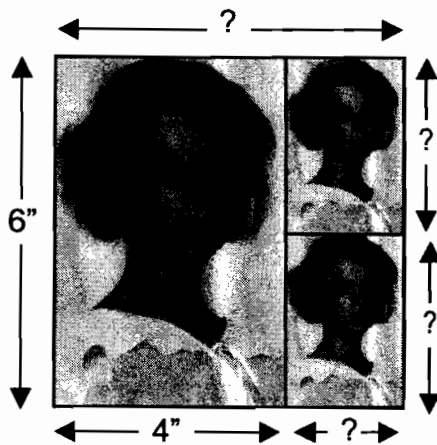


Diagram 1

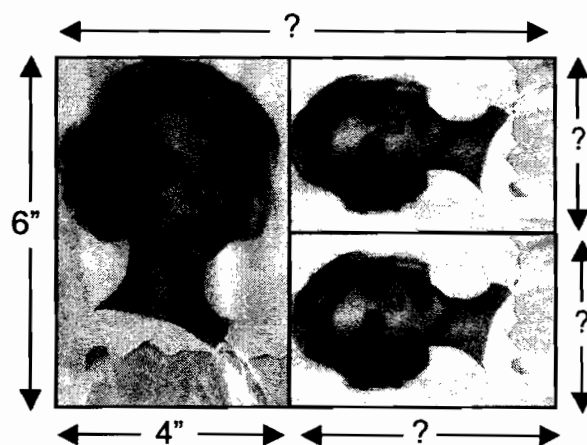


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

1 side of the large photo is 6 so the other side has to be $6 \div 2 = 3$ each. the other side of the photo is 4 + it is cut in half on the other pic, so it is 2. The small pic is a 3x2

S3

Diagram 2

The long side is 6 so the other side is 6, but 2 pics, so $6 \div 2 = 3$. The other side ~~is~~ is 4, + it is the same as the small pic. So the small pic is 4×3

✓
0
0

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

✓
1

Diagram 2

The measurements of the sheet of paper are 8^x wide and 6 high.

0

8 5

Photographs

S4

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

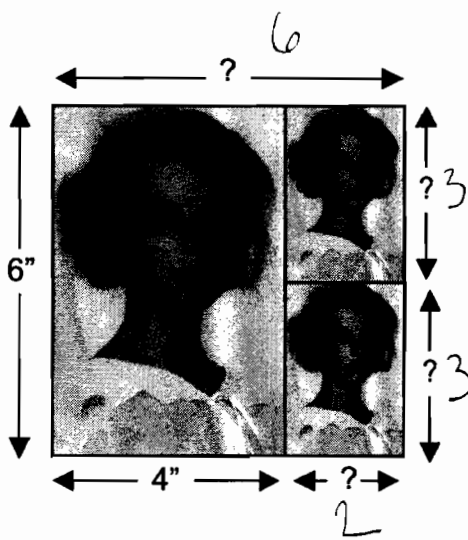


Diagram 1

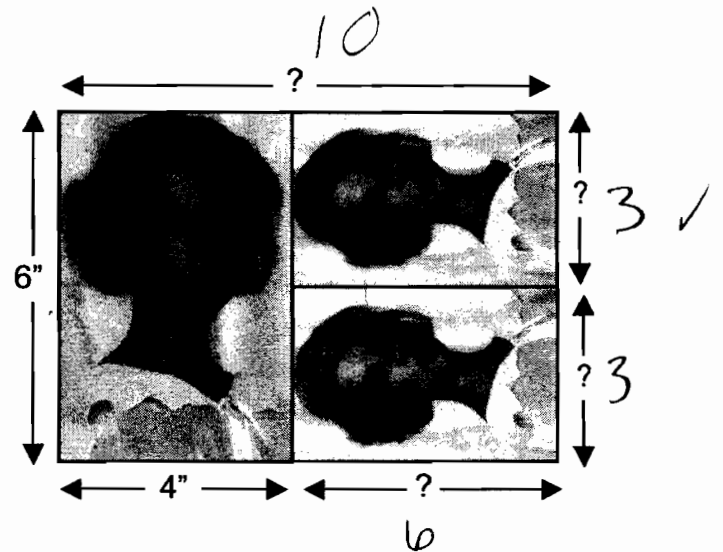


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

It's a square so it would be 6 inches around
If there is 4 on the bottom you need 2 more
top is just 6 and the smaller pictures
are 3 because they are half of 6

Diagram 2

x

The top side is 10 because the smaller pictures in Diagram 1 are 3x smaller than in Diagram 2.

1
0
0

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

✓

1

Diagram 2

x

The measurements of the sheet of paper are 10 wide and 6 high.

0

Photographs

S5

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

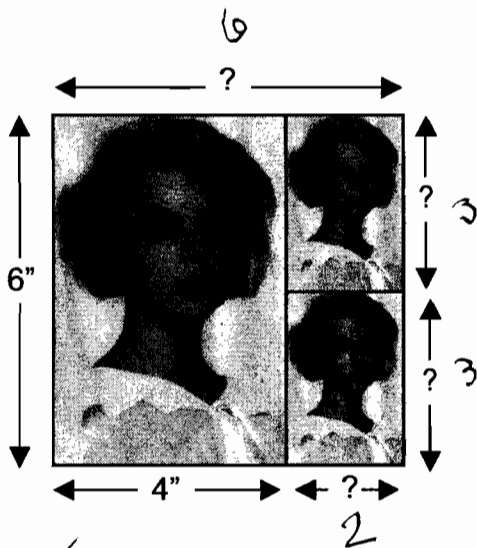


Diagram 1

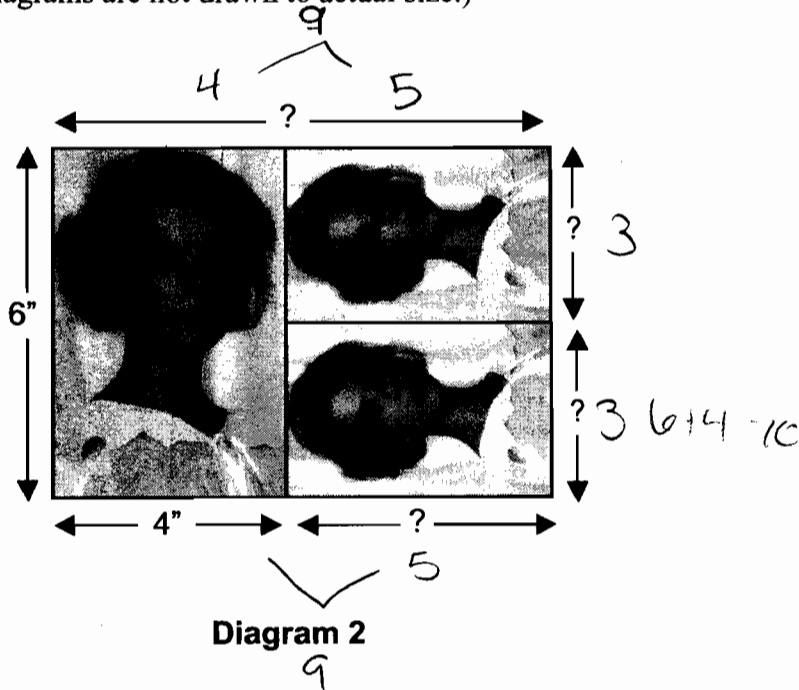


Diagram 2

$6 \div 2 = 3$ ✓

$6 - 4 = 2$ ✓
X

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

If the original height was 6 inches you would divide that by two for the opposite side. If you subtract the 4 X from the 6 you get 2 for the base. For the top, I would just copie the base.

1
0
1

Diagram 2

✓ If the original height was 6" you would divide the height (6") by 2 for the opposite side. If you know 4 is the width, you would use that to find it's five. You would then do the same for the base.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

Diagram 2

The measurements of the sheet of paper are 10^x wide and 6 high.

8

4

Photographs

S6

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

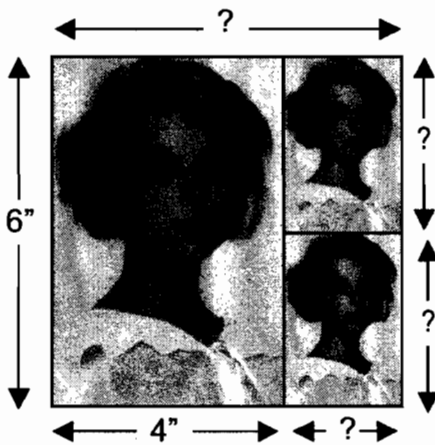


Diagram 1

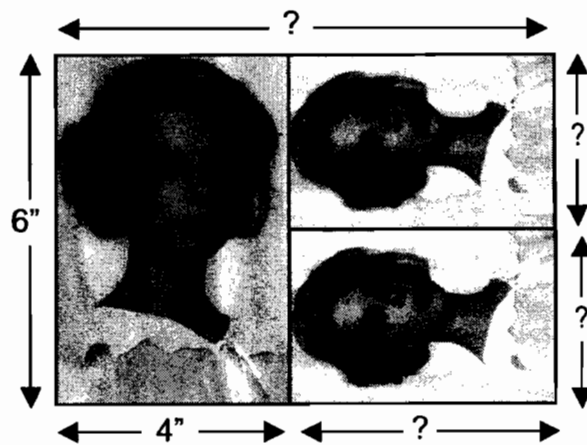


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1 ✓
 $4 \div 2 = 2$ 2×3 I divided the lengths of the
 $6 \div 2 = 3$ / the big photos to find the small
photos.

Diagram 2

$6 \div 2 = 3$ ✓ I took the tall one divided by 4
 $9 \div 1 = 9$ to the → the width of the small photo
 X The length was the width of the
 big photo.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high. ✓

Diagram 2

The measurements of the sheet of paper are 8^x wide and 6 high. 0

8 5

Photographs

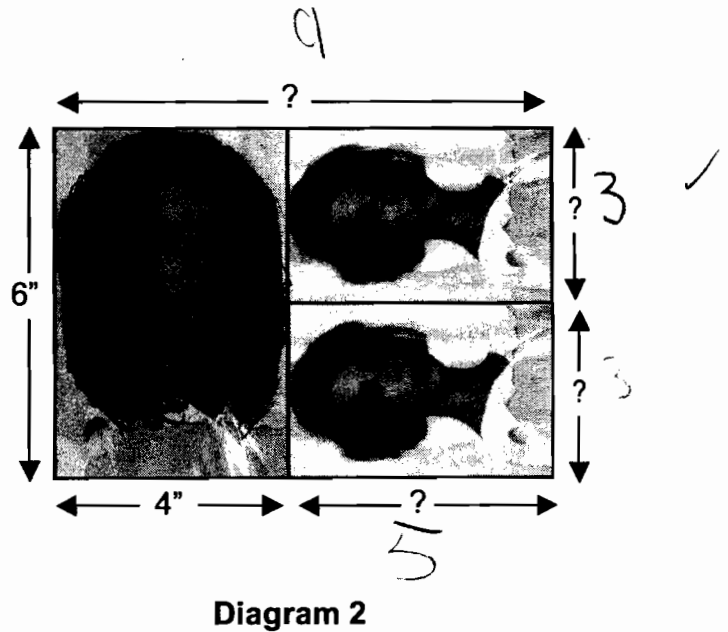
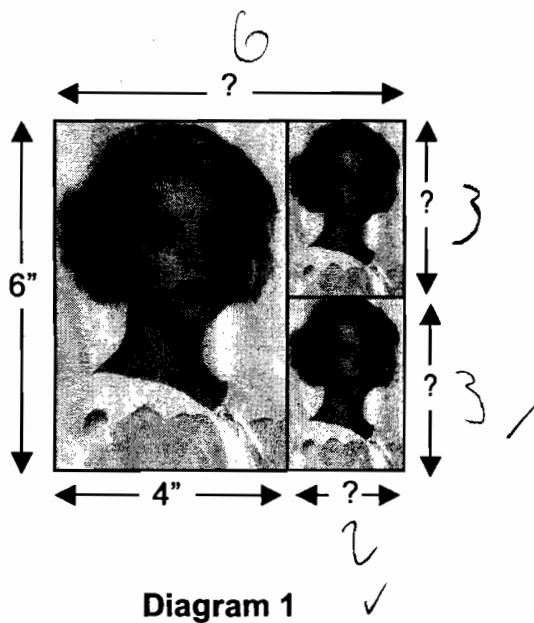
S7

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)



1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

The diagram is a square so the sides have to be equal amounts of space

1
0
1

S7

Diagram 2

I found that, by using deductive reasoning and spatial skills.

1
0
0.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6" wide and 6" high.

1

Diagram 2

The measurements of the sheet of paper are 9" x wide and 6" high.

0

8 4

Photographs

S8

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

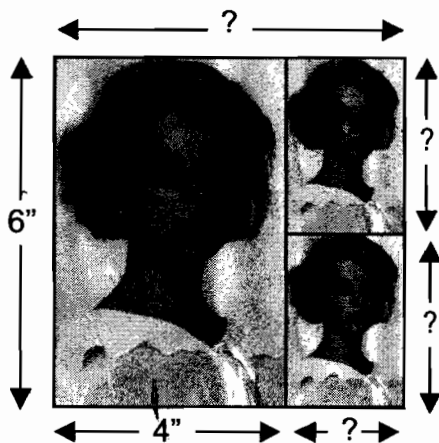


Diagram 1

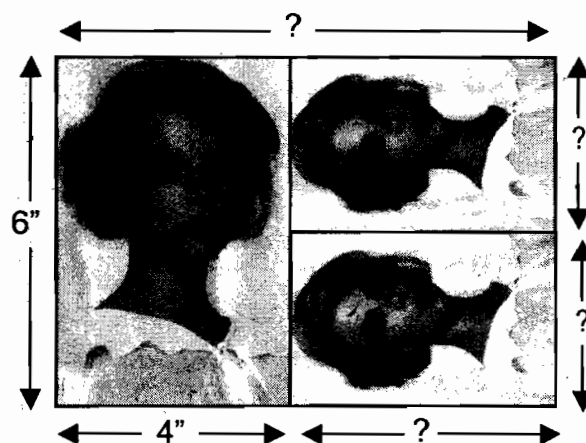


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

$$6 \div 2 = 3 \quad 4 \div 2 = 2$$

a 3" ↓ by ← 2 →. I found the scale factor by there are 2 tall to the original

Diagram 2

$$6 - 2 = 3'' \text{ wide } \checkmark$$

$$3 \times 1.5 = 4.5'' \text{ tall } \checkmark$$

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high. \checkmark

Diagram 2

The measurements of the sheet of paper are 8.5 wide and 6 high. \checkmark

Photographs

S9

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

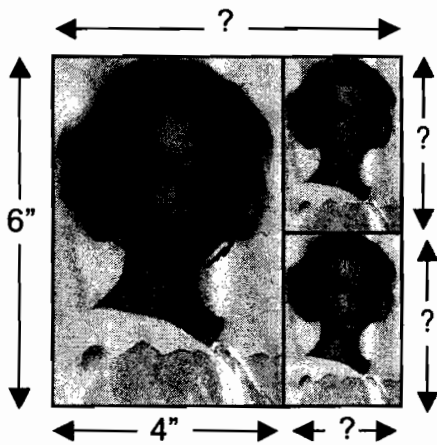


Diagram 1

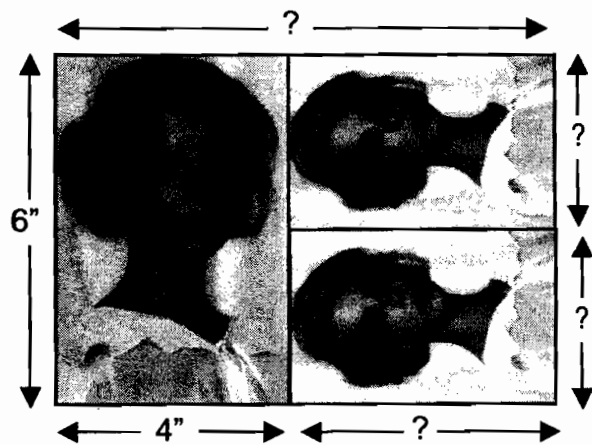


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

The measurements of the smaller photographs are 3in high by 2in wide. You can figure this out by doing a proportion.

Handwritten calculations:
 $6 \div 2 = 3$
 $4 \div 2 = 2$
 $6 \div 2 = 3$
 $4 \div 2 = 2$
 $x = 2$

6 in x 3

S9

Diagram 2

x

The sizes for the smaller pictures are 4 in. tall
by 3 in. wide.

1

0

0

$$\begin{array}{r} 4 \\ + 2 \\ \hline 6 \end{array}$$

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 in wide and 6 in high.

1

Diagram 2

The measurements of the sheet of paper are 8 in. wide and 6 in. high.

$$\begin{array}{r} 4 \\ + 4 \\ \hline 8 \end{array}$$

0

8

5

Photographs

S10

This problem gives you the chance to:

- use proportion in a real life geometric context

A photographer wants to print a photograph and two smaller copies on the same rectangular sheet of paper. The photograph is 4 inches wide and 6 inches high.

Here are two ways he could do it. (Note: the diagrams are not drawn to actual size.)

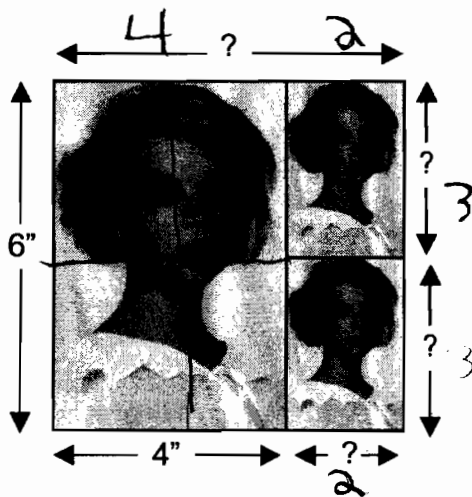


Diagram 1

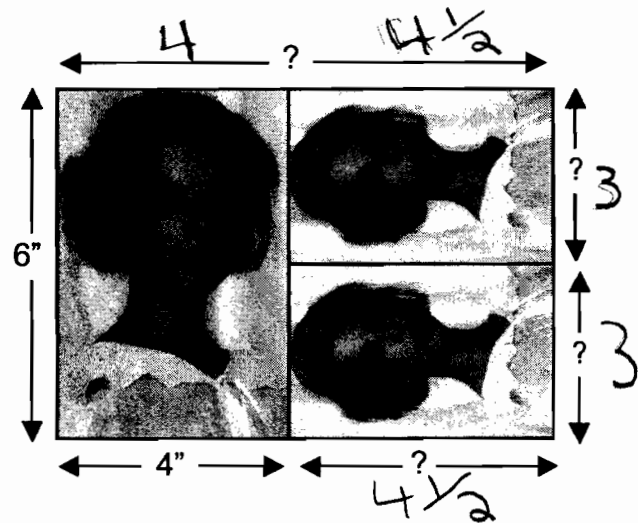


Diagram 2

1. Find the measurements of the small photographs for each arrangement. Show your calculations and explain how you figured it out.

Diagram 1

First I find the measurements of each side of each photograph by scaling. I then cut the big picture into 4 pieces which mean the smaller pictures would have half size measurements.

Diagram 2

I had to use scaling proportion methods. My
answers are on the other page.

2. Find the size of the sheet of paper for each arrangement.

Diagram 1

The measurements of the sheet of paper are 6 wide and 6 high.

Diagram 2

The measurements of the sheet of paper are $8\frac{1}{2}$ wide and 6 high.