

Rally Coach

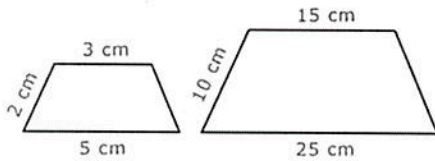
Directions: Take turns doing problems.

Name: Key

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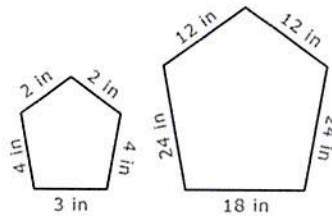
Determine the SCALE FACTOR from the figure on the left to the figure on the right.

1.



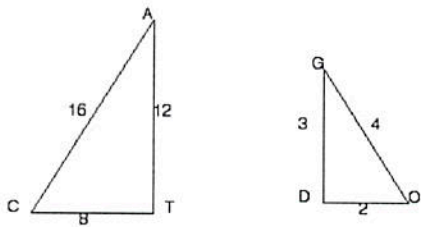
S.F. = 5

2.



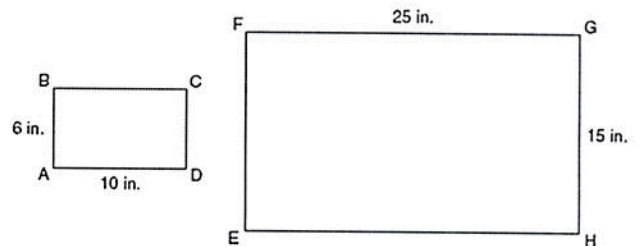
S.F. = 6

3.



S.F. = $\frac{1}{4}$

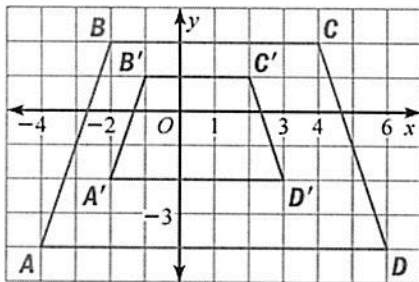
4.



S.F. = $\frac{5}{2}$ or 2.5

Determine the SCALE FACTOR from the preimage to the image.

5. Which of the following choices is the scale factor?



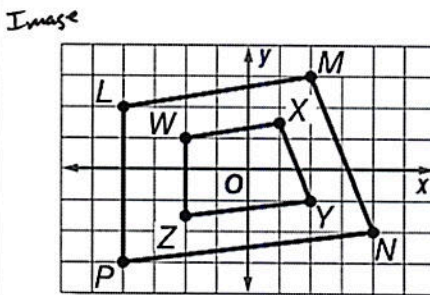
F. $\frac{1}{4}$

G. $\frac{1}{2}$

H. 2

I. 3

6. Quadrilateral $LMNP$ was dilated to form quadrilateral $WXYZ$. Which of the following choices is the scale factor?



F. 3

H. 2

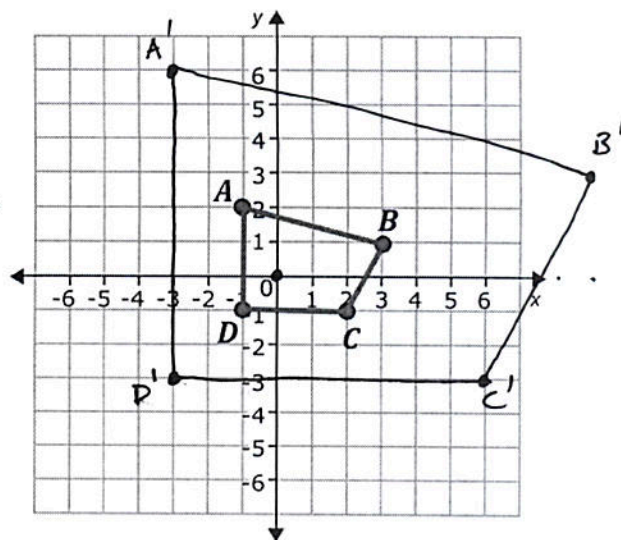
G. $\frac{1}{2}$

J. $\frac{1}{3}$

7. Graph the quadrilateral $A'B'C'D'$ after dilation with scale factor of 3, centered at $(0,0)$. Write the coordinates of the image in the space provided.

A'	(<u>-3</u> , <u>6</u>)
B'	(<u>9</u> , <u>3</u>)
C'	(<u>6</u> , <u>-3</u>)
D'	(<u>-3</u> , <u>-3</u>)

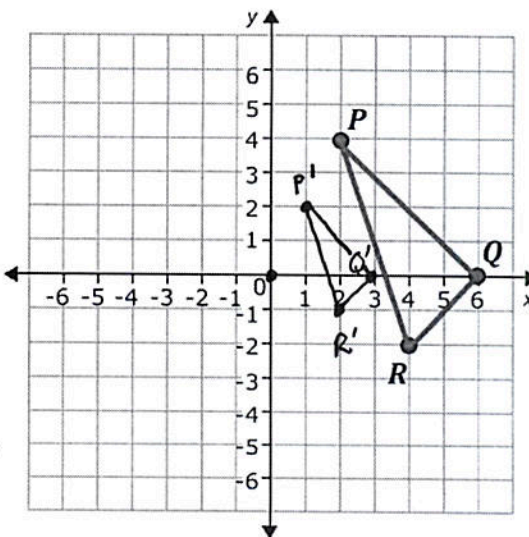
$A \leftarrow 1, 2 \uparrow$
 $1 \cdot 3 = 3 \leftarrow, 2 \cdot 3 = 6 \uparrow$
 $B \rightarrow 3, 1 \uparrow$
 $3 \cdot 3 = 9 \rightarrow, 1 \cdot 3 = 3 \uparrow$
 $C \rightarrow 2, 1 \downarrow$
 $2 \cdot 3 = 6 \rightarrow, 1 \cdot 3 = 3 \downarrow$



8. Graph the triangle $P'Q'R'$ after dilation with scale factor of $\frac{1}{2}$, centered at $(0,0)$. Write the coordinates of the image in the space provided.

P'	(<u>1</u> , <u>2</u>)
Q'	(<u>3</u> , <u>0</u>)
R'	(<u>2</u> , <u>-1</u>)

$P \rightarrow 2, 4 \uparrow$
 $2 \cdot \frac{1}{2} = 1 \rightarrow, 4 \cdot \frac{1}{2} = 2 \uparrow$
 $Q \rightarrow 6, 0 \uparrow \text{ or } \downarrow$
 $6 \cdot \frac{1}{2} = 3 \rightarrow, 0 \cdot \frac{1}{2} = 0$
 $R \rightarrow 4, 2 \downarrow$
 $4 \cdot \frac{1}{2} = 2 \rightarrow, 2 \cdot \frac{1}{2} = 1 \downarrow$



Together now.

Graph the preimage with the following vertices:
 $E(-6, 2), L(2, 2), S(2, 0), A(-6, 0)$

- a) Dilate the pre-image from the origin by a scale factor of $\frac{1}{2}$. List the vertices of the image.

E'	(<u>-3</u> , <u>1</u>)
L'	(<u>1</u> , <u>1</u>)
S'	(<u>1</u> , <u>0</u>)
A'	(<u>-3</u> , <u>0</u>)

- b) Graph the image, $E'L'S'A'$.

