Vanishing Points

4 questions

1 point

1.

When the camera is zooming, do the vanishing points move?

- Yes
- No

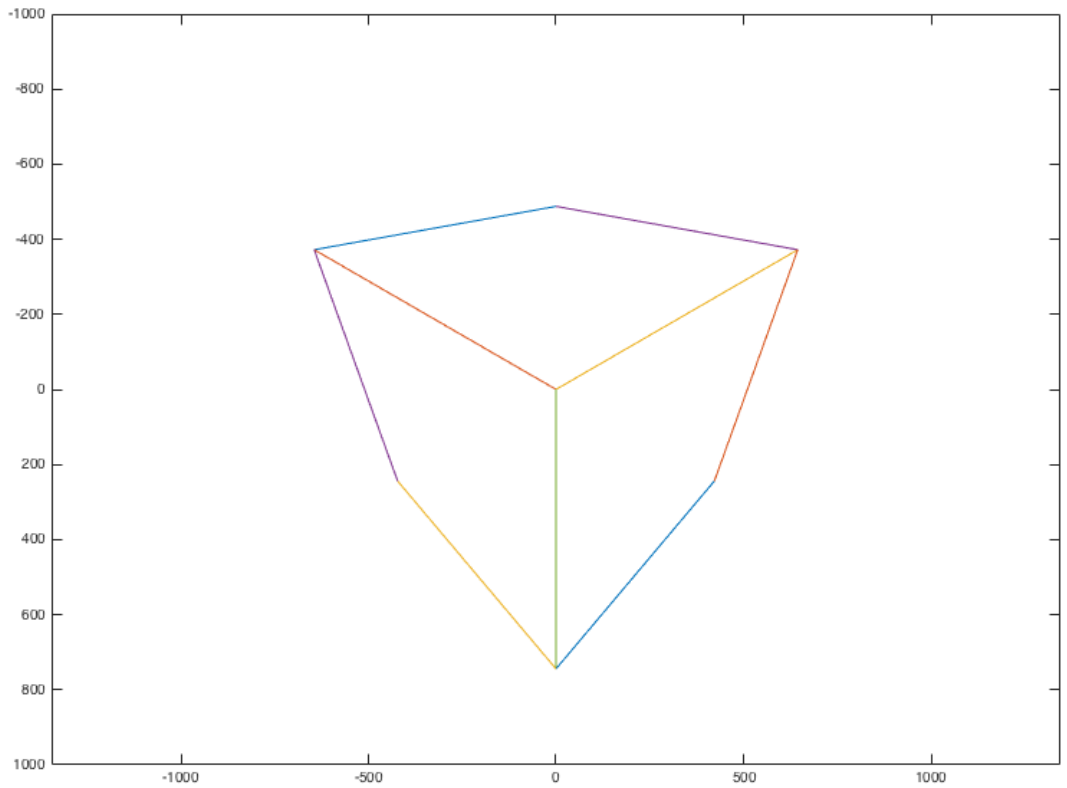
1 point

2.

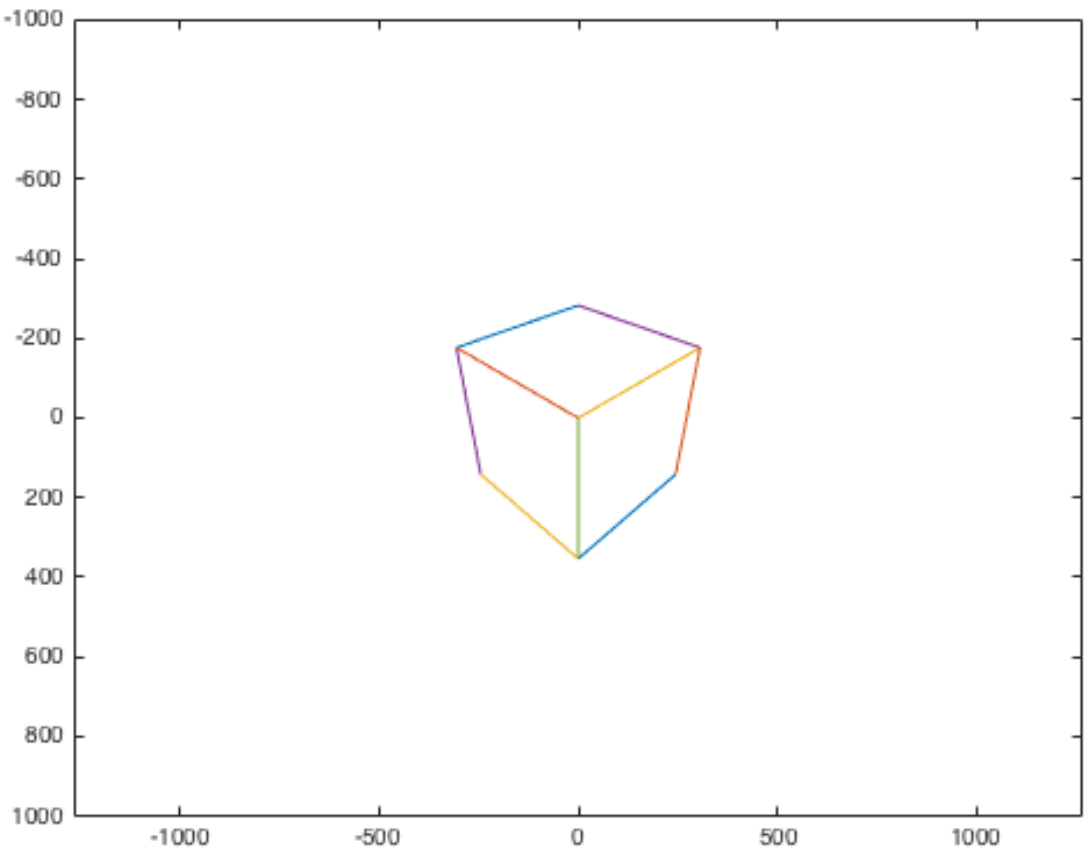
What camera change would give the following result from Image 1 to Image 2

(Hint: Notice how the vanishing points change)

[Image 1]



[Image 2]



Camera Translation

Zooming

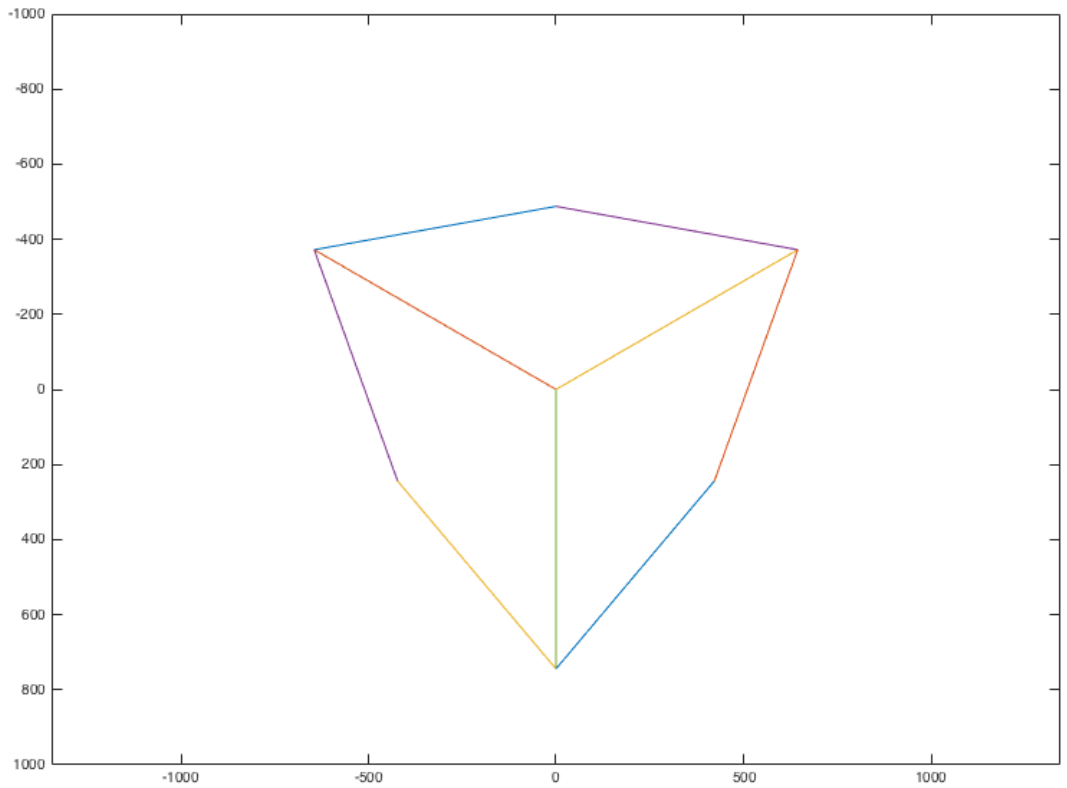
1 point

3.

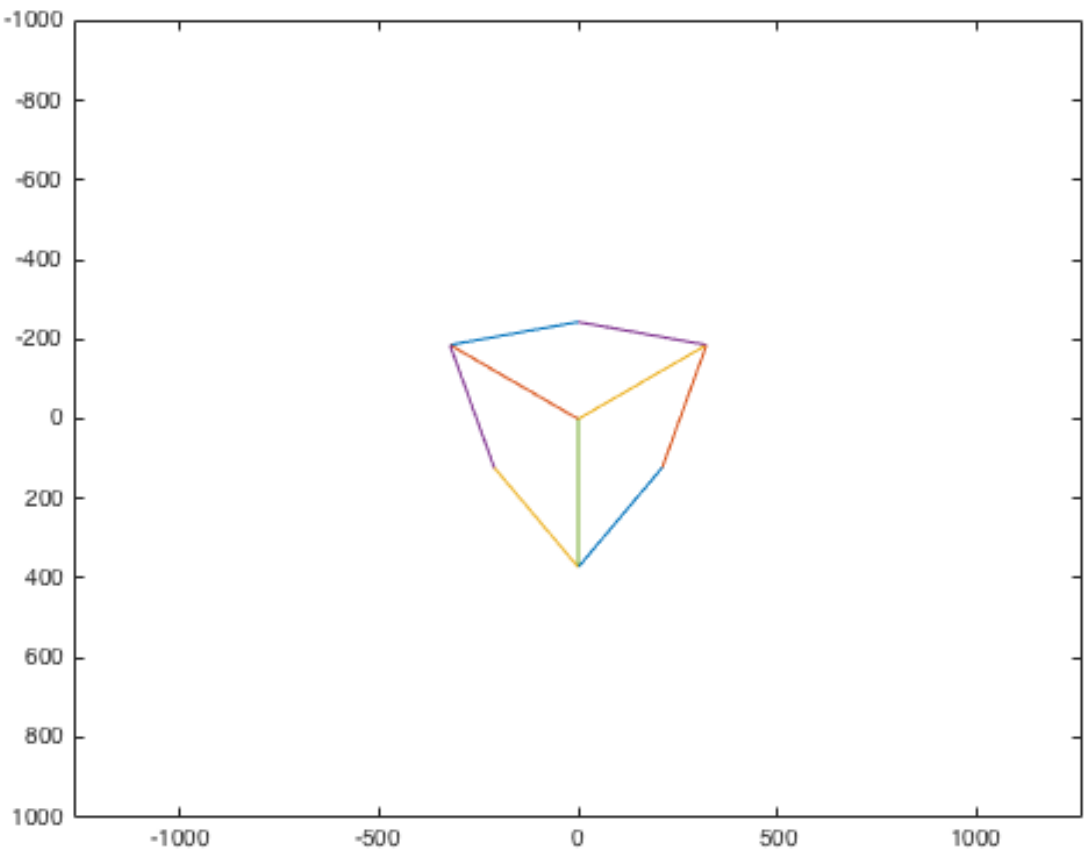
What camera change would give the following result from Image 1 to Image 2

(Hint: Notice if the vanishing points change)

[Image 1]



[Image 2]



Camera Translation

Zooming

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1 point

4.

The image of the rectangle-shaped facade of a building has two vanishing points, one at $(-b, 0)$ corresponding to horizontal lines and one at $(0, h)$ correspondng to the vertical lines. Which of the following transformations will map the facade to a rectangle. Assume that the origin $(0, 0)$ and the point $(1, 1)$ remain fixed.

$$\begin{pmatrix} h-b+bh & 0 & 0 \\ 0 & h-b+bh & 0 \\ h & -b & bh \end{pmatrix}$$

$$\begin{pmatrix} h-b+bh & 0 & 0 \\ 0 & h-b+bh & 0 \\ h & -b & h-b+bh \end{pmatrix}$$

$$\begin{pmatrix} h+bh & 0 & 0 \\ 0 & h+bh & 0 \\ h & -b & bh \end{pmatrix}$$

$$\begin{pmatrix} h+b+bh & 0 & 0 \\ 0 & h+b+bh & 0 \\ h & b & bh \end{pmatrix}$$

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4 questions unanswered

Submit Quiz