# EXERCISE 4

## 1. Projection I

Suppose you want to render a WUXGA image ($1920 \times 1200$) with square pixels. Your camera has a vertical field of view of $\theta = 60°$ and a symmetric view frustum.

(a) Write down a perspective projection matrix for

- distance to near clipping plane: 3,
- distance to far clipping plane: 6.

(b) Check the matrix. Use at least 4 points for which you know the projection in advance.

## 2. Projection II

Determine how a symmetric perspective projection matrix' maps $z$-values. Draw a graph.

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