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CSE 5542
HW2

- Matrix A is responsible for transforming the scene from canonical space to screen space
Matrix B is responsible for transforming from camera space to the canonical space
Matrix C is the perspective transformation
Matrix D is responsible for transforming from world space to camera space
Matrix E is responsible for transforming from object space into world space
- Assuming that we're projecting onto a screen with resolution $n_x \times n_y$

$$A = \begin{bmatrix} \frac{n_x}{2} & 0 & 0 & \frac{n_x - 1}{2} \\ 0 & \frac{n_y}{2} & 0 & \frac{n_y - 1}{2} \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

B =

$$C = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & \frac{1}{n} & 0 \end{bmatrix}$$

D =

E =