This is a title

This is some text with maths:

$$\frac{\sqrt{2}}{2} = \frac{1}{\sqrt{2}}$$

And this is a test canvas with an animation:

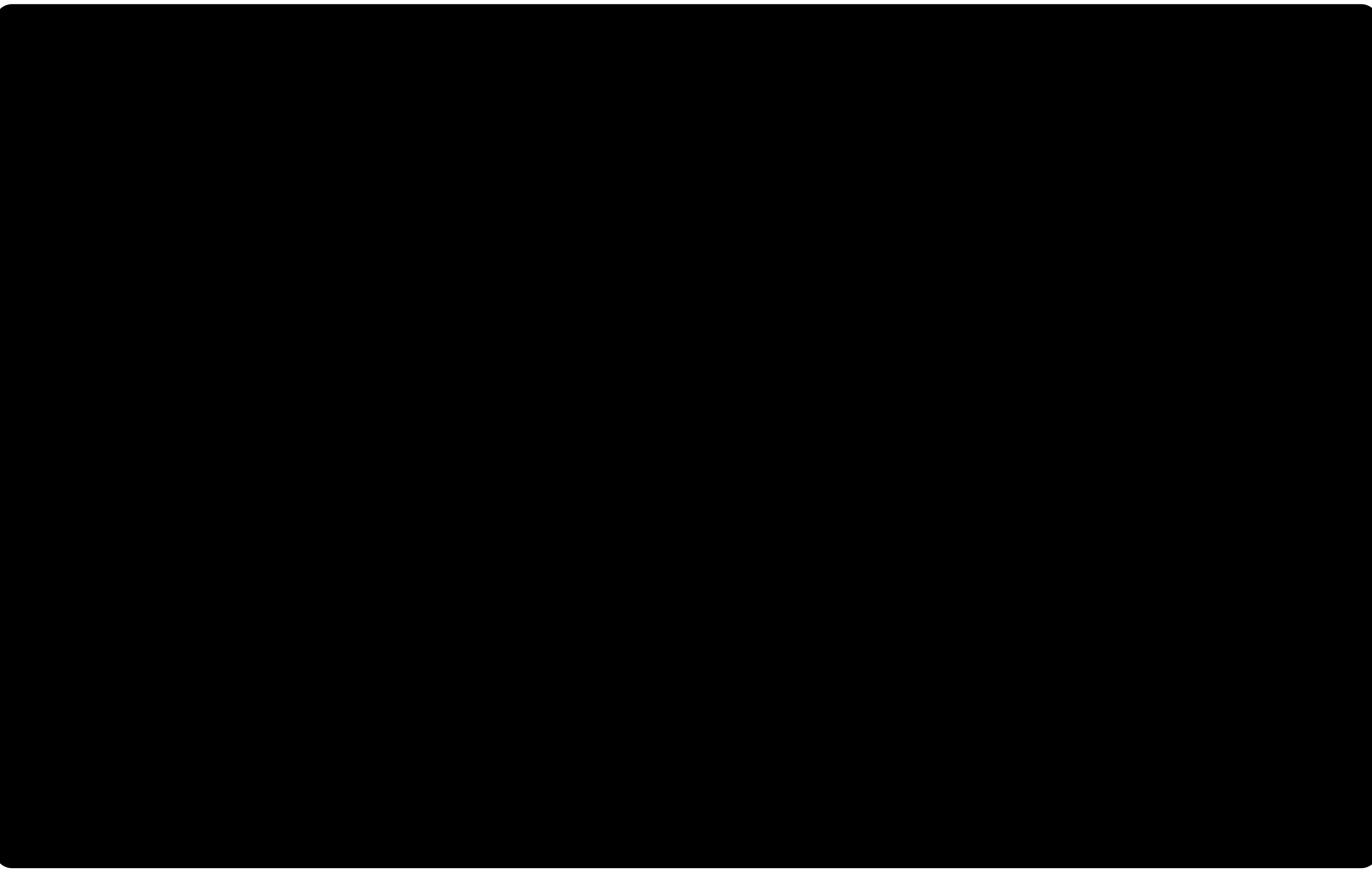

Figure 1: A rotating cube

Look in the console to see rust in action (ignore all the errors)!

There is also draggable handles:

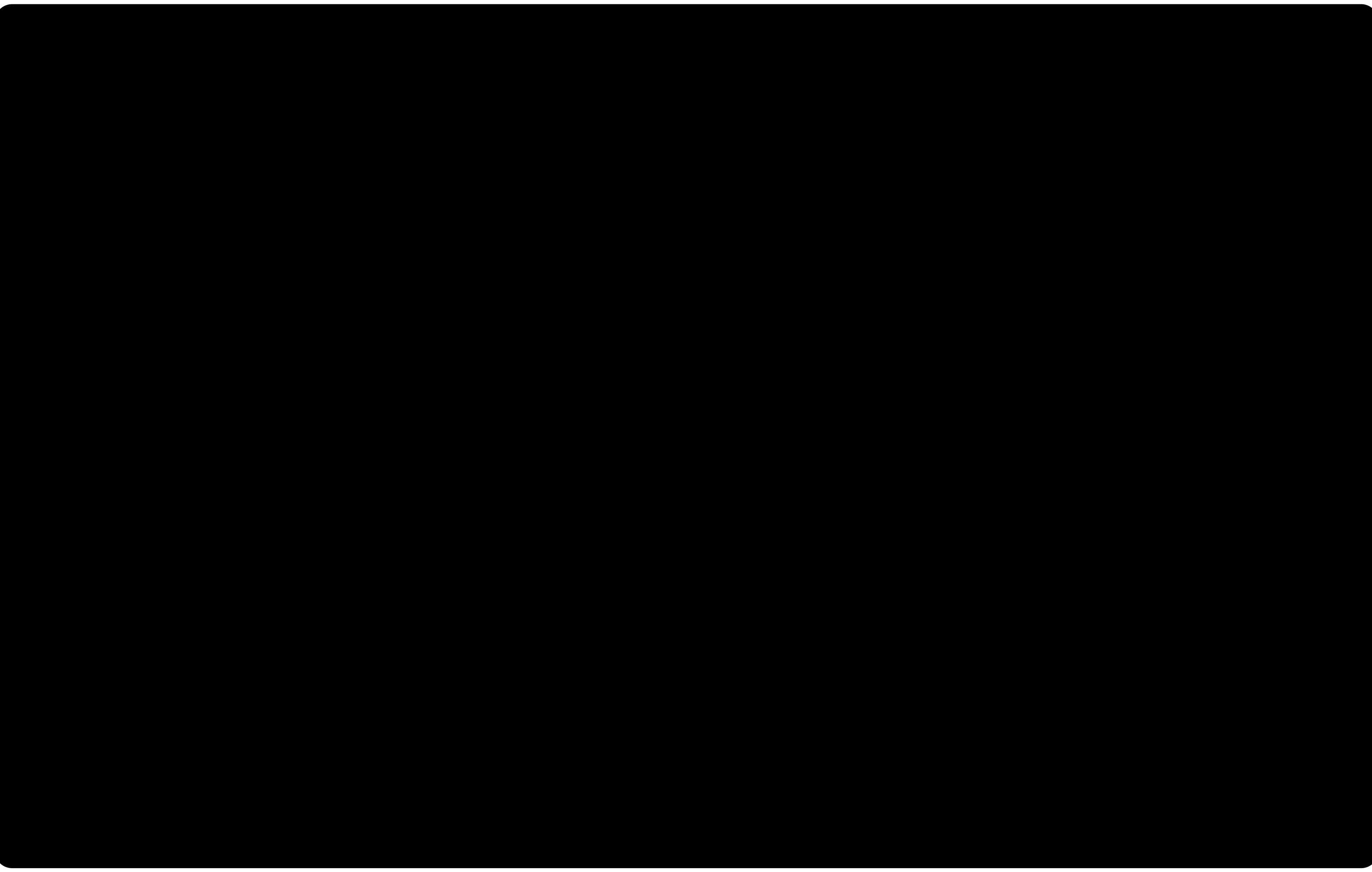

Figure 2: Nearest neighbor interpolation

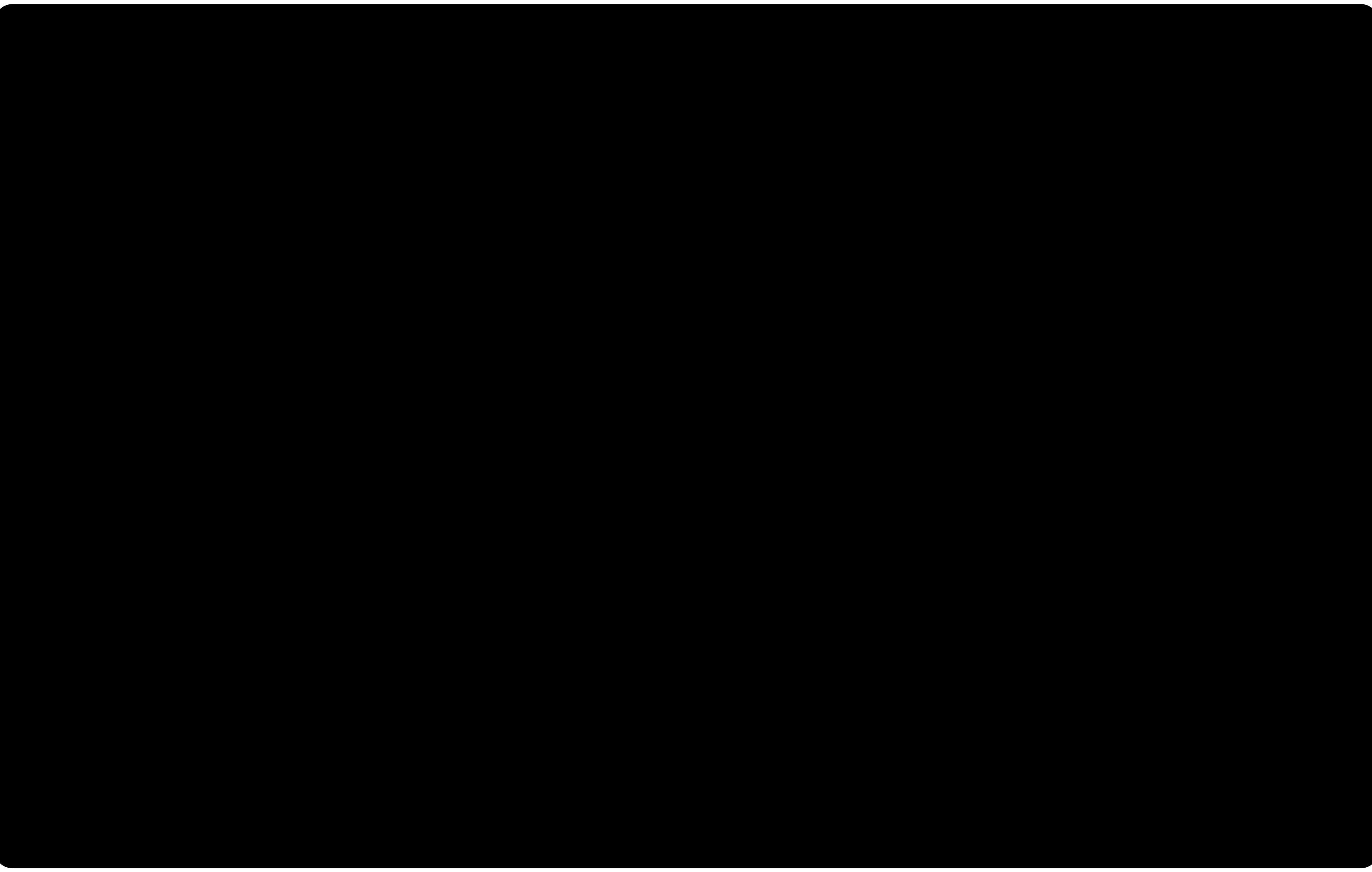

Figure 3: Inverse distance interpolation

Proofs

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Definition. (Barycentric coordinates) Like before, let $A_k\ {}_{k\in[0,\ n]}\in E^{n+1}$, so that $A_k - A_0\ {}_{k\in[1,\ n]}$ is a basis, and let $M\in E$. For all $i\in[1,\ n]$, $\lambda_i\ M$ is the n^{th} barycentric coordinate for M, so:

$$M = \sum_{k=1}^{n} \lambda_k\ M\ A_k$$

Definition. (Alternativ definition of Barycentric coordinates) Like before, let $A_k\ {}_{k\in[0,\ n]}\in E^{n+1}$, so that $\overrightarrow{A_0A_k}\ {}_{k\in[1,\ n]}$ is a basis of $\overrightarrow{E}$, and let $M\in E$. For all $i\in[0,\ n]$, $\lambda_i\ M$ is the n^{th} barycentric coordinate for M, so:

$$\sum_{k=0}^{n} \lambda_k\ M\ \overrightarrow{MA_k} = 0$$

Let set for all $k\in[1,\ n]$, $b_k = \ \overrightarrow{A_0A_k}\ .\ \ b_1 \ldots b_n \setminus b_k$ defines a hyperplane $\mathcal{B}_k$ of $\overrightarrow{E}$.

We will name P_k the associated plane in E

Proposition. (Barycentric coordinates expression)
Let H be the orthogonal projection of M on $\mathcal{B}_k$ and K the orthogonal projection of A_k on $\mathcal{B}_k$.

$$\lambda_k \ M \ = \frac{\left\| M - H \right\|}{\left\| A_k - K \right\|}$$

Proposition. (Barycentric coordinates expression)
Let H be the orthogonal projection of M on $\mathcal{B}_k$ and K the orthogonal projection of A_k on $\mathcal{B}_k$.

$$\lambda_k \ M \ = \frac{\left\| \overrightarrow{HM} \right\|}{\left\| \overrightarrow{KA_k} \right\|}$$

Proof — Click to expand

Proof with vectors — Click to expand