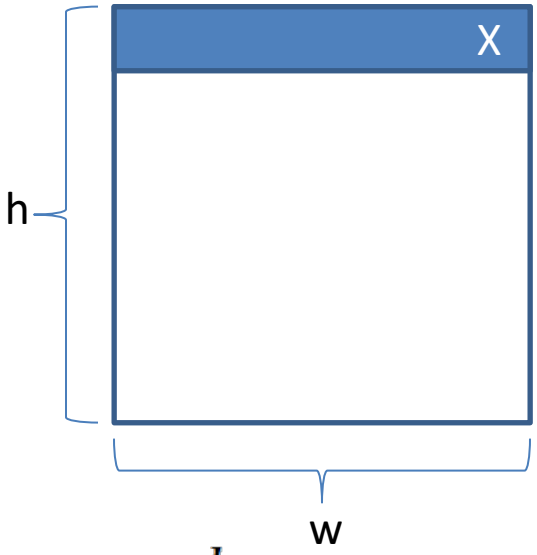
Corrigindo o aspecto da tela

Ortho 2D: $x_{min}, x_{max}, y_{min}, y_{max}$ → Coordenadas de Universo
"window"

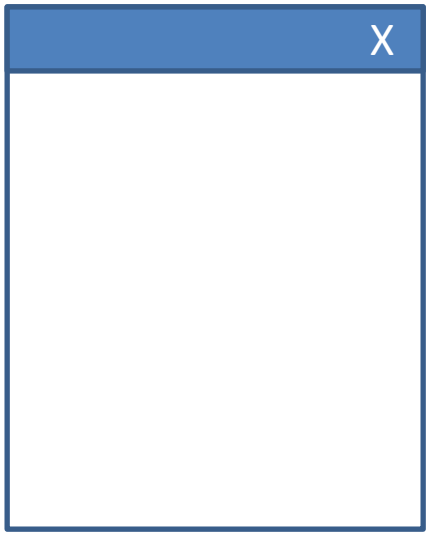
Viewport: $x_{min}, x_{min}, largura, altura$ → Coordenadas de Tela



$$w = h$$
$$\frac{w}{h} = \frac{h}{w} = 1$$

$$w > h,$$
$$\frac{w}{h} > 1,$$
$$\frac{h}{w} < 1$$

Corrige a largura



$$h > w,$$
$$\frac{h}{w} > 1,$$
$$\frac{w}{h} < 1$$

Corrige a altura

$$x_{min} * \frac{w}{h}, x_{max} * \frac{w}{h}, y_{min}, y_{max}$$

$$x_{min}, x_{max}, y_{min} * \frac{h}{w}, y_{max} * \frac{h}{w}$$

Na OpenGL...

```
float ratio;
float xMin = -1.0, xMax = 1.0, yMin = -1.0, yMax = 1.0;
float zNear = -1.0, zFar = 1.0;
if (width >= height)
{
	ratio = width / (float)height;
	projection =  glm::ortho(xMin*ratio, xMax*ratio, yMin,
	yMax,zNear,zFar);
}
else
{
	ratio = height / (float)width;
	projection =  glm::ortho(xMin, xMax, yMin*ratio,
	yMax*ratio, zNear, zFar);
}
```