



Figure III.12: An example of how a non-uniform scaling transformation affects a normal. The transformation maps $\langle x, y \rangle$ to $\langle \frac{1}{2}x, y \rangle$. The line with unit normal $\mathbf{n}_1 = \langle \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}} \rangle$ is transformed to a line with unit normal $\mathbf{n}_2 = \langle \frac{2}{\sqrt{5}}, \frac{1}{\sqrt{5}} \rangle$.