

**1.2.2.** Find the vector  $\mathbf{B}$  from the origin to the opposite corner that lies in the  $xy$  plane.

The vector begins at  $(0, 0, 0)$  and ends at  $(a, a, 0)$ , so

$$\mathbf{B} = \begin{pmatrix} a \\ a \\ 0 \end{pmatrix}.$$