

The Logic of Metric-Sized Paper. To go from a larger size (for example, A4) to the next smaller size (A5), the width of A4 becomes the length of A5, and the length of A4 is halved to become the width of A5. To go from a smaller size (again, for example, A4) to the next larger size (A3), the length of A4 becomes the width of A3, and the width of A4 is doubled to become the length of A3. The aspect ratio of length to width always equals $\sqrt{2}$. Furthermore, every larger size has exactly twice the area of every smaller size.