1046-Z1-1218 **William Goldbloom Bloch*** (bbloch@wheatoncollege.edu), Department of Mathematics, Wheaton College, Norton, MA 02492. *Discontinuous open maps from $\mathbb{R}^n$ onto $\mathbb{R}^n$.*

Let X and Y be topological spaces. Recall that a map $f : X \to Y$ is an open map if for all open sets $A \subset X$, it is the case that $f(A)$ is open in Y. We provide two interesting examples. The first is an independent rediscovery of a discontinuous open map from $\mathbb{R}$ onto $\mathbb{R}$. The second is a new simple example of a discontinuous open map from $\mathbb{R}^2$ onto $\mathbb{R}^2$. We'll also state—and, time permitting, sketch the proof—of a minor proposition showing that a bijective open map from $\mathbb{R}^n$ onto $\mathbb{R}^n$ is continuous. (Received September 15, 2008)