

Answers to #4 on page 127

(a) about continuity of functions $f, g, h: \mathbb{R} \rightarrow \mathbb{R}^w$ where the target has topologies product (p), uniform (u), box (b).

The answers are in the table:

	p	u	b
f	✓	✗	✗
g	✓	✓	✗
h	✓	✓	✗

(b) about convergence of sequences w, x, y, z

(Just as for part (a) the key ingredient is an explicit description of basic open sets for the uniform topology.

I will show it in class.)

	p	u	b
w	✓	X	X
x	✓	✓	X
y	✓	✓	X
z	✓	✓	✓