Question #10

a. Exercise 3.5.1, sections b, c

b. (foam, tall, non-fat)

c. B X C = { (foam, non-fat), (foam, whole), (no-foam, non-fat), (no-foam, whole) }

b. Exercise 3.5.3, sections b, c, e

b. $\mathbb{Z}^2 \subseteq \mathbb{R}^2$ TRUE

c. $\mathbb{Z}^2 \cap \mathbb{Z}^3 = \emptyset$ TRUE

e. For any 3 sets, A, B and C, if $A \subseteq B$, then $A \times C \subseteq B \times C$ TRUE

c. Exercise 3.5.6, sections d, e

d. $\{01, 011, 001, 0011\}$

e. $\{aaa, aaaa, aba, abaa\}$

d. Exercise 3.5.7, sections c, f, g

c. {aa, ab, ac, ad}

f. $\{\emptyset, \{ab\}, \{ac\}, \{ab, ac\}\}$

g. $\{(\emptyset, \emptyset),\ (\emptyset, b),\ (\emptyset, c),\ (\emptyset, b, c),\ (a, \emptyset),\ (a, b),\ (a, c),\ (a, b, c)\}$