Section 2.1 : cont'd

Wednesday, October 15, 2014
2:39 PM

Assign 3 (online and hardcopy)
is due on Monday, Oct 27

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example: Let $X = \{0, 1, 2\}$, $Y = \{3\}$, and $Z = \{0, 3\}$

Are the following statements True or False?

a) $X \times Y$ is a function. True

b) $Y \times X$ is a function False

c) $Y \subseteq Y \times Z$ False

d) $Y \times Y \subseteq Z \times Y$ True

$X \times Y = \{(0,3), (1,3), (2,3)\}$

$Y \times X = \{(3,0), (3,1), (3,2)\}$

Y set of integers

$Y \times Z$ set of ordered

pairs

How many elements would there be in

$X \times Y \times X \times Z \times X \times X \times Z \times X$?

$3 \cdot 1 \cdot 3 \cdot 2 \cdot 3 \cdot 3 \cdot 2 \cdot 3 = 972$