Homework 3

Wednesday, March 22, 2017 8:10 AM

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ul2
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1a) $\{-1, 1\}$

b) $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

c) $\{0, 1, 4, 9, 16, 25, 36, 49, 64, 81\}$ a

d) $\emptyset$

2a) T b) T c) F d) T e) T f) T

3. $P(A) = \{\emptyset, a, b, c, 1, 2, a1, \ , b1, b2, c1, c2, ab1, ab2, ac1\ c2, bc1, bc2, abc1, abc2\}$

4. a) $x \in A \cup B$

$x \in A \quad x \in B$

b) $A \subseteq C$, $B \subseteq D$

c) $A \times B \subseteq C \times D$

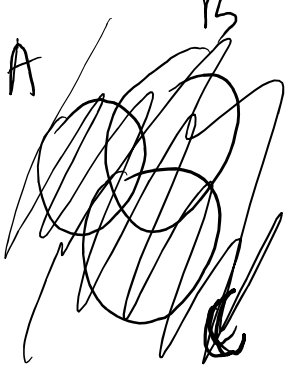
5 a) $\{x \in \mathbb{Z} \mid x \geq 1 = \{3, 1\}\}$

b) $\emptyset$

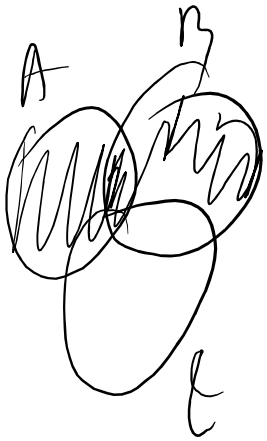
c) $\{x \in \mathbb{Z} \mid x > 1\}$

6 a)

b)



c)



7-a) Yes, 1-1 and onto

b) No, neither

c) Not a function

d) yes 1-1 and onto

9. a) onto

b) no

c) onto

d) Not?

e) onto

16. $f^{-1}(x) = \{x \in A \mid f(x) \notin S$

$f(x) \in S$

$x \notin f^{-1}(S)$

$x \in f^{-1}(S)$

$x \in S$ 则

implies $f(x) \notin S$

$f(x) \in S \rightarrow x \in f^{-1}(S)$

(1) set a or C

D is wrong, No Zero

B is wrong, Zero overlaps