

1

(A) $B = \{ \}$ since x has to be less than 100 and minimum value is 10, $10^2 \geq 100$ thus \emptyset

(B) $B = \{ 0, 1, 2, \dots, 4 \}$

2

(A)

$B = \{ x \mid x \in \mathbb{N}, 1 \leq x \leq 3 \}$

(B) $B = \{ 2x \mid x \in \mathbb{Z}, -1 \leq x \leq 3 \}$

3

(A) $= \{ 2, 6 \}$

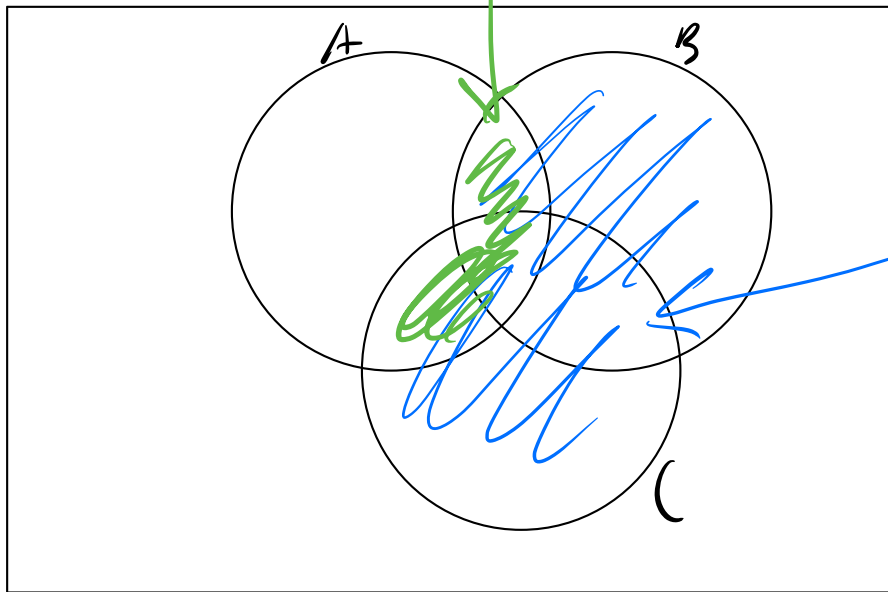
(D) $= \{ 4, 8, 9 \}$

(B) $= \{ 1, 2, 3, \dots, 9 \}$

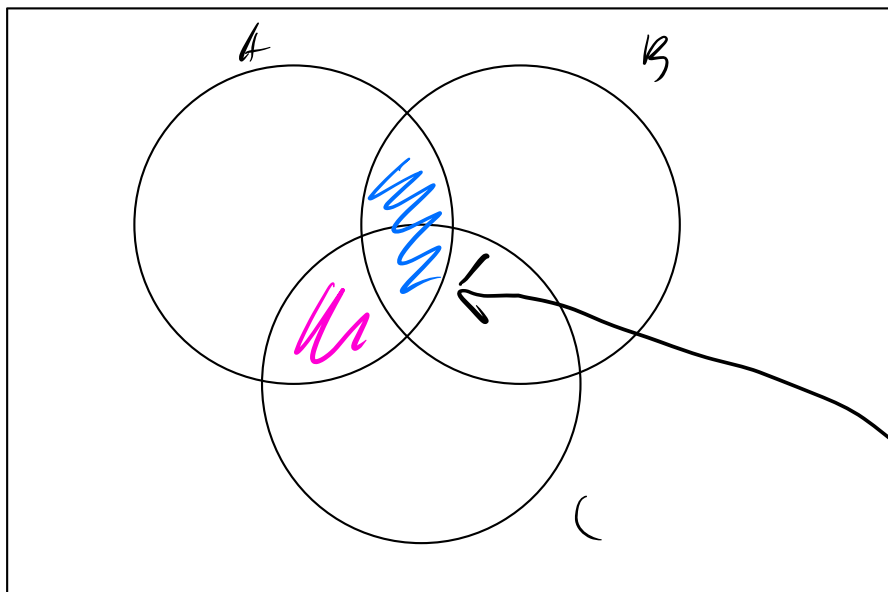
(C) $= \{ 1, 4, 5, 7 \}$

4

$A \cap (x)$



$(B \cup C)$



$A \cap B$

$A \cap C$

$\cup \geq$ both of
pink and
blue

5

$$A = \{ (1,1), (1,2), (1,3) \dots (n,1), (n,2), (n,3) \}$$

$$B = \{ (1,1), (2,1), (2,2), (3,1), (3,2), (3,3), (4,1), (4,2) \\ (4,3), \}$$

6

This proposition is true because there are no elements in the list to compare the statement to leaving the statement true. If there were an element within the set then there would be a way to show that it is potentially false. All of the elements, of which there are none, that are in the set have three toes.