

# Math 1303 - Math in the Liberal Arts

## Week 2 Discussion Board Questions

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Choose one of the following problems and state its solution. Be sure to explain your answer!

1.  $\{e \mid e \text{ is an even number}\} \in \{w \mid w \text{ is a whole number}\}$
2.  $\{e \mid e \text{ is an even number}\} \subseteq \{w \mid w \text{ is a whole number}\}$
3.  $2 \in \{p \mid p \text{ is a prime number}\}$
4.  $\{3, 5\} \subset \{p \mid p \text{ is a prime number}\}$
5.  $\{3, 5\} \in \{p \mid p \text{ is a prime number}\}$
6.  $\{x \mid x \text{ is an integer}\} \subset \{x \mid x \text{ is a rational number}\}$
7.  $\{x \mid x \text{ is a natural number}\} \subset \{x \mid x \text{ is a whole number}\}$
8.  $\{x \mid x \text{ is a whole number}\} \subset \{x \mid x \text{ is a natural number}\}$
9.  $\text{soccer} \in \{s \mid s \text{ is a sporting event at the olympic games}\}$
10.  $\{\text{water polo, diving}\} \in \{s \mid s \text{ is a water sports event at the olympic games}\}$
11.  $\{v \mid v \text{ is a vowel}\} \subset \{c \mid c \text{ is a consonant}\}$
12.  $\{v \mid v \text{ is a vowel}\} \subset \{l \mid l \text{ is a letter in the alphabet}\}$
13.  $\{a, e, y\} \subset \{v \mid v \text{ is a vowel}\}$
14.  $\{a, e\} \in \{v \mid v \text{ is a vowel}\}$
15.  $\{a, e, i, o, u\} \in \{v \mid v \text{ is a vowel}\}$
16.  $\{a, e, i, o, u\} \subset \{v \mid v \text{ is a vowel}\}$
17.  $\{a, e, i, o, u\} = \{v \mid v \text{ is a vowel}\}$
18.  $\{a, e, i, o, u\} \subseteq \{v \mid v \text{ is a vowel}\}$
19.  $\{\text{soccer, field hockey, tennis}\} \subset \{s \mid s \text{ is a sporting event at the olympic games}\}$
20.  $\{p \mid p \text{ is a prime number greater than 2}\} \subset \{o \mid o \text{ is a positive odd integer}\}$
21.  $\{p \mid p \text{ is a primary color}\} \subseteq \{r \mid r \text{ is a color in a rainbow}\}$
22.  $\text{red} \subset \{r \mid r \text{ is a color in a rainbow}\}$
23.  $\text{red} \in \{r \mid r \text{ is a color in a rainbow}\}$
24.  $A, B, C \in \{G \mid G \text{ is a grade that you can receive in this class}\}$
25.  $A, B, C \subset \{G \mid G \text{ is a grade that you can receive in this class}\}$