Team Members:

1. 2.
3. 4.

Section: TR 12:30 pm T 6:00 pm

Team Rules:

- Work through these exercises with a team in class.
- **Only one answer sheet will be turned in.** Each member of the team will receive the same score.

Work Rules:

- Fill out your answers on the **answer sheet!**
- Write cleanly and linearly! - If I can't make sense of your solution, you won't get credit. You can also type out your answers if you'd prefer.
- Write out each step – If I can't see the logic you used to get from one step to another, you might get points off.
- Don't scribble out cancellations – I can't read that. If a numerator / denominator cancel out, or if there is a +/- that cancels out, don't scribble – just use a single slash, or add an extra step!

Grading:

Each question as a weight, and all questions can receive a score between 0 and 4:

Nothing written	Something attempted, but incorrect	Partially correct, but multiple errors.	Mostly correct, with one or two errors.	Perfect. Correct answer and notation
0	**1**	**2**	**3**	**4**

Answer Sheet

Exercise 1 **(___/3)**

	$\mathbb{N}$	$\mathbb{Z}$	$\mathbb{Q}$	$\mathbb{R}$
10				
-5				
12 / 6				
π				
2.40				

Exercise 2 **(___/1)**

Exercise 3 **(___/1)**

Exercise 4 **(___/1)**

Exercise 5a circle the true statements **(___/9)**

1. $B \subseteq C$
2. $D \subseteq A$
3. $U \subseteq \emptyset$
4. $C \subseteq U$
5. $B \subseteq B$
6. $U \subseteq \mathbb{N}$
7. $B \subseteq \mathbb{Z}$
8. $B \subseteq D$
9. $E \subseteq D$

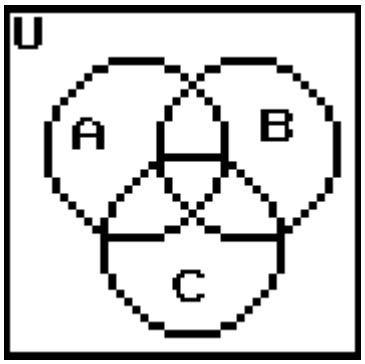
Exercise 5b **(___/6)**

Fill in with $\subseteq$ (is a subset of), $\not\subseteq$ (not a subset of), or = (equal to)

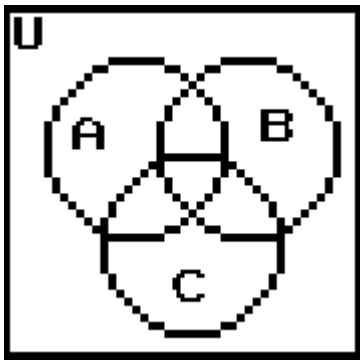
1. D ____ U
2. D ____ C
3. D ____ B
4. C ____ E
5. E ____ U
6. E ____ D

Exercise 6 color in the Venn diagrams **(___/9)**

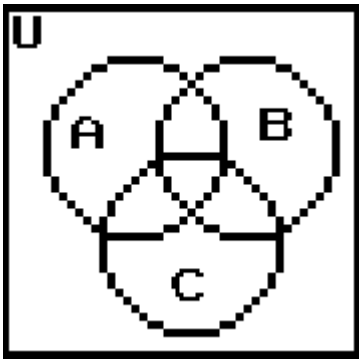
a) $A \cap B$



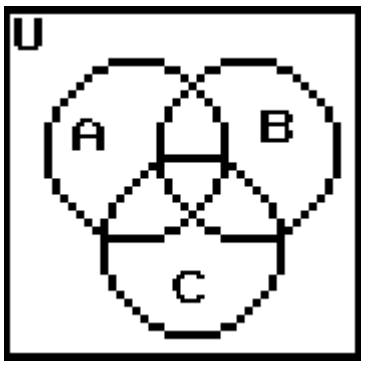
b) $A \cap C$



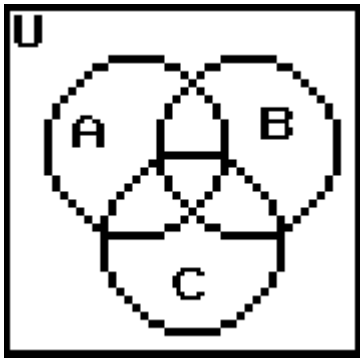
c) $(A \cap B) \cup (A \cap C)$



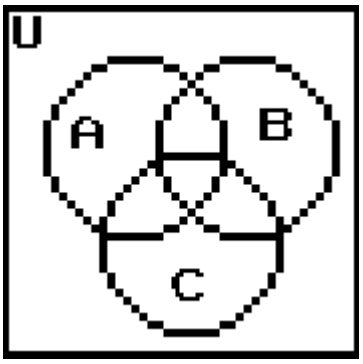
d) $B \cup C$



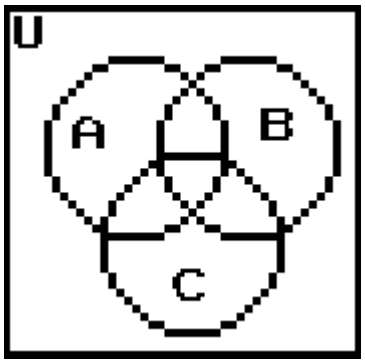
e) $A \cap (B \cup C)$



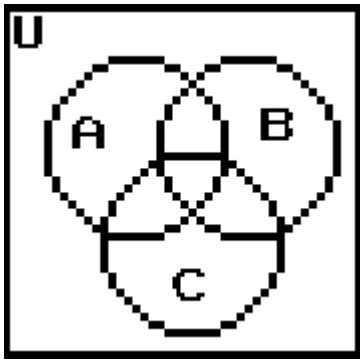
f) $B - C$



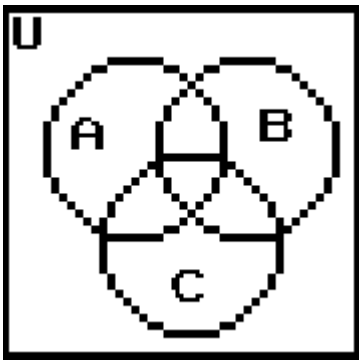
g) B'



h) $(A \cup B) - B$



i) $A \cup (B - C)$



Exercise 7a Are they equivalent? Write out, then answer Yes/No **(___/1)**

$A \cap (B \cup C) =$

$(A \cap B) \cup (A \cap C) =$

Exercise 7b Are they equivalent? Write out, then answer Yes/No **(___/1)**

$(A \cup B)' =$

$A' \cap B' =$

Exercise 7c Are they equivalent? Write out, then answer Yes/No **(___/1)**

$A \cap (A \cup B) =$

$A =$

Exercise 8a **(___/2)**

Property description:

Form description:

Exercise 8b **(___/2)**

Property description:

Form description:

Exercise 9a **(___/2)**

Form description:

Exercise 9b **(___/2)**

Form description:

Exercise 9c **(___/2)**

Form description: