

# Day 86

## 1. Opener

a) What are the next two terms?

5

12

7

2

b) Solve:

$$\frac{2}{x^2 + 5x + 6} + \frac{3}{x^2 + 6x + 8} = \frac{2}{(x + 4)(x + 2)(x + 3)}$$

c) Reduce:

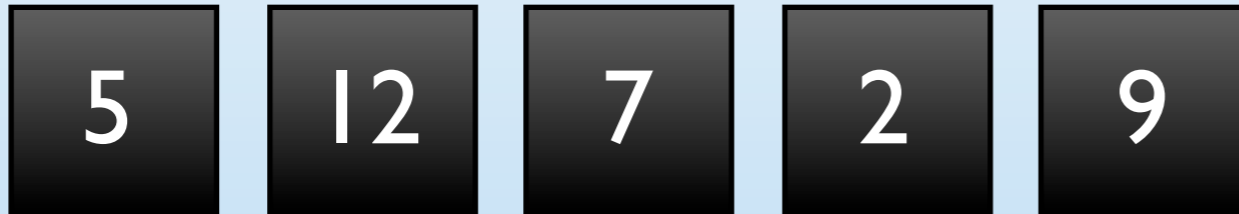
$$\sqrt{27x^7} \cdot \sqrt{3x^5}$$

d) What is the longest one-syllable word?

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c) Reduce:

$$\sqrt{27x^7} \cdot \sqrt{3x^5}$$

d) What is the longest one-syllable word?

## 7. Homework

### Practice

$$\sqrt{12b^2} \cdot \sqrt{15b^3} =$$

### Challenge

Friday 5/22/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	95	70	57	90	71	81	62	67	95	52	40	53			70
Sixth	57	100	48	71	62	90	86	86	57	86	52	43	70			70

Friday 5/27/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
<b>Fourth</b>	80	95	70	57	90	71	81	62	67	95	57	45	53			71
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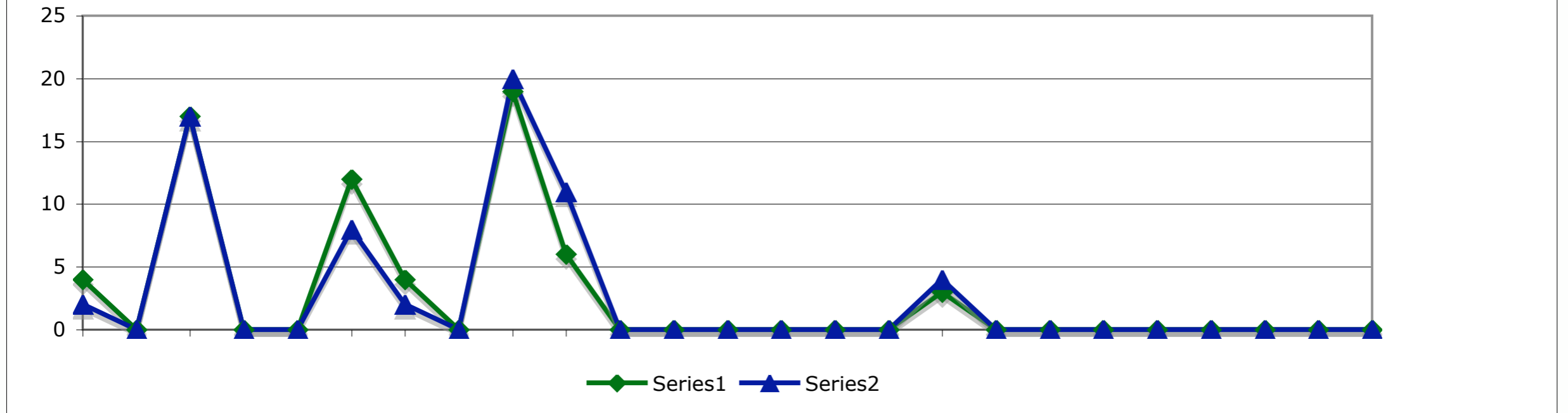


24	25	26	27	28	29	30
31	1	2	3	4	5	6
7	8	9	10	11	12	13

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7	8	9	10	11	12	13

24	25	26	27	28	29	30
31	1	2	3	4	5	6
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# Text messages



64

Recived text messages

65

Sent text messages

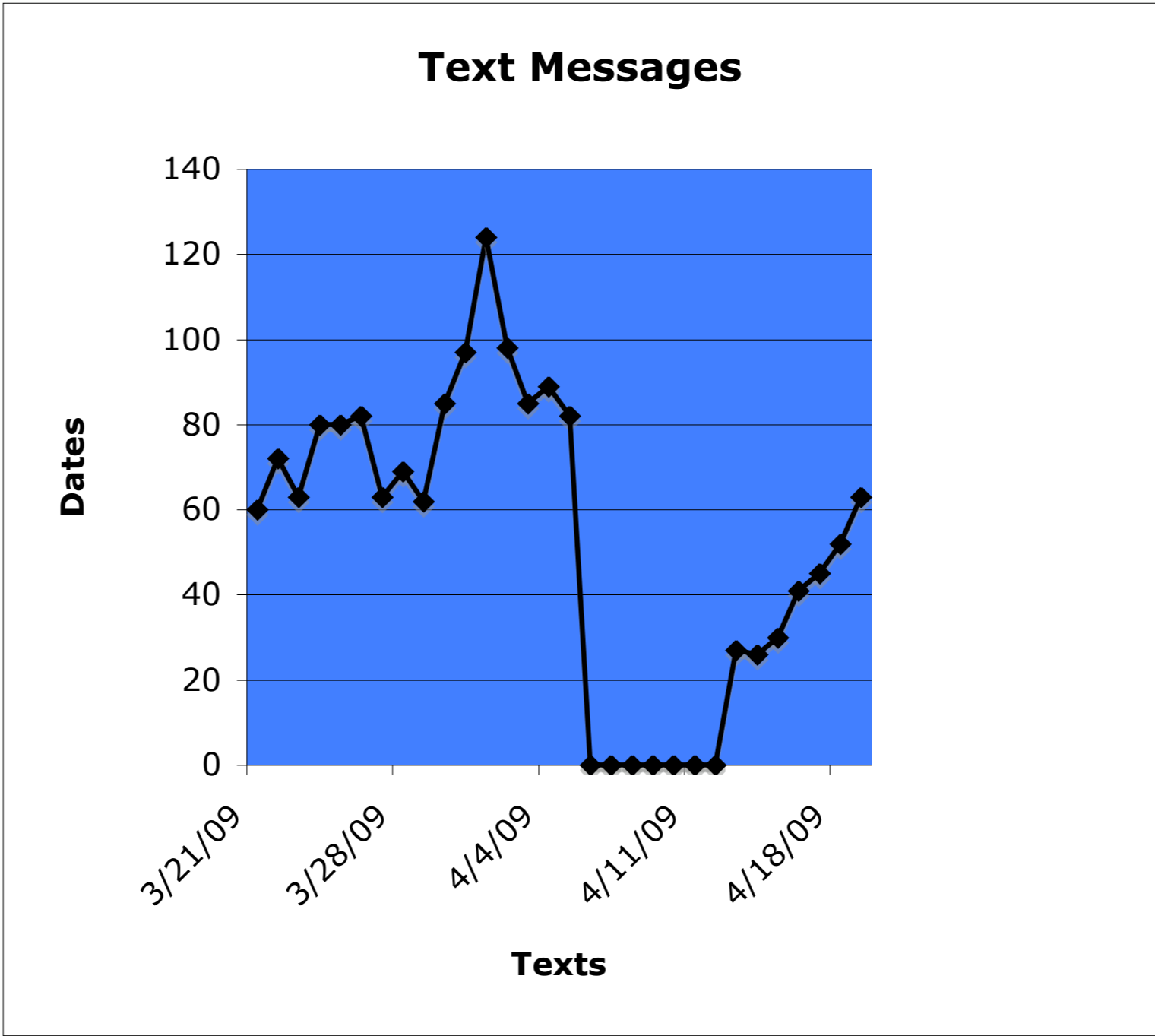
129

Total sent and recived text messages

3

Total sent and recived in a day

# Text Messages



**50**

Average Sent text messages per day

**52**

Average Received text messages per day

**102**

average text messages per month



## 2. Operations With Square Roots

$$40 + \sqrt{90}$$

## 2. Operations With Square Roots

$$\sqrt{40} + \sqrt{90}$$



## 2. Operations With Square Roots

$$\sqrt{20} - 5\sqrt{45}$$

### **3. Classwork**

pg. 503 // #1 - 6

pg. 503 // #10 - 16

**4. Break**

**5. Show and Tell**

## 6. Operations With Square Roots

$$\sqrt{5}(4\sqrt{5} - \sqrt{10})$$

# 7. Classwork

pg. 503 // #17 - 25

# 8. Set Theory



# Sets



# Sets

$$R = \{ \hspace{15em} \}$$

# Sets

R = { }

A = { }

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection



## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection

$R \cap A = \{ \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection

$R \cap A = \{ \text{all the rapper/actors in the world} \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection

$R \cap A = \{ \text{all the rapper/actors in the world} \}$

## Complement

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection

$R \cap A = \{ \text{all the rapper/actors in the world} \}$

## Complement

$A' = \{ \quad \quad \quad \}$

## Sets

$R = \{ \text{all the rappers in the world} \}$

$A = \{ \text{all the actors in the world} \}$

## Union

$R \cup A = \{ \text{all the rappers or actors in the world} \}$

## Intersection

$R \cap A = \{ \text{all the rapper/actors in the world} \}$

## Complement

$A' = \{ \text{everyone in the world who isn't an actor} \}$



# 8. Set Theory

## **8. Set Theory**

A = People In This Class Who Play A School Sport



## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

C = People In This Class Whose First Name Starts With A-M

## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

C = People In This Class Whose First Name Starts With A-M

D = People Shorter Than Six Feet In This Class.

## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

C = People In This Class Whose First Name Starts With A-M

D = People Shorter Than Six Feet In This Class.

E = Girls In This Class

## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

C = People In This Class Whose First Name Starts With A-M

D = People Shorter Than Six Feet In This Class.

E = Girls In This Class

F = Seniors In This Class

## 8. Set Theory

A = People In This Class Who Play A School Sport

B = Freshmen In This Class

C = People In This Class Whose First Name Starts With A-M

D = People Shorter Than Six Feet In This Class.

E = Girls In This Class

F = Seniors In This Class

G = People In This Class Whose First Name Starts With N-Z

## 8. Set Theory

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I = People Six Feet Or Taller In This Class.



## 8. Set Theory

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1.  $A \cap I$

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1.  $A \cap I$

2.  $A \cup I$

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1.  $A \cap I$

2.  $A \cup I$

3.  $E \cap F$

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1.  $A \cap I$

2.  $A \cup I$

3.  $E \cap F$

4.  $B \cup F$

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1.  $A \cap I$

5.  $C \cap I \cap H$

2.  $A \cup I$

3.  $E \cap F$

4.  $B \cup F$

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1.  $A \cap I$

5.  $C \cap I \cap H$

2.  $A \cup I$

6.  $G \cup C$

3.  $E \cap F$

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1.  $A \cap I$

5.  $C \cap I \cap H$

2.  $A \cup I$

6.  $G \cup C$

3.  $E \cap F$

4.  $B \cup F$

8.  $E \cap I$

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1.  $A \cap I$

5.  $C \cap I \cap H$

2.  $A \cup I$

6.  $G \cup C$

3.  $E \cap F$

7.  $B \cap C \cap H$

4.  $B \cup F$

8.  $E \cap I$



## 8. Set Theory

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1.  $A \cap I$

5.  $C \cap I \cap H$

9.  $D \cap I$

2.  $A \cup I$

6.  $G \cup C$

3.  $E \cap F$

7.  $B \cap C \cap H$

4.  $B \cup F$

8.  $E \cap I$

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1.  $A \cap I$

5.  $C \cap I \cap H$

9.  $D \cap I$

2.  $A \cup I$

6.  $G \cup C$

10.  $E \cap G \cap B$

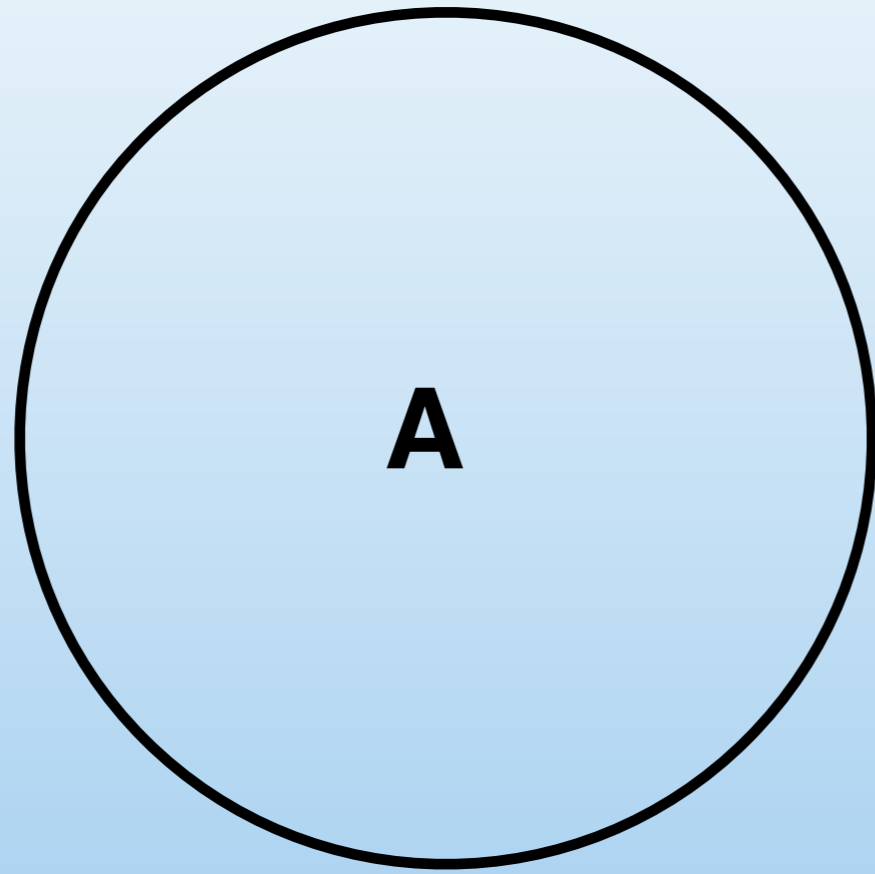
3.  $E \cap F$

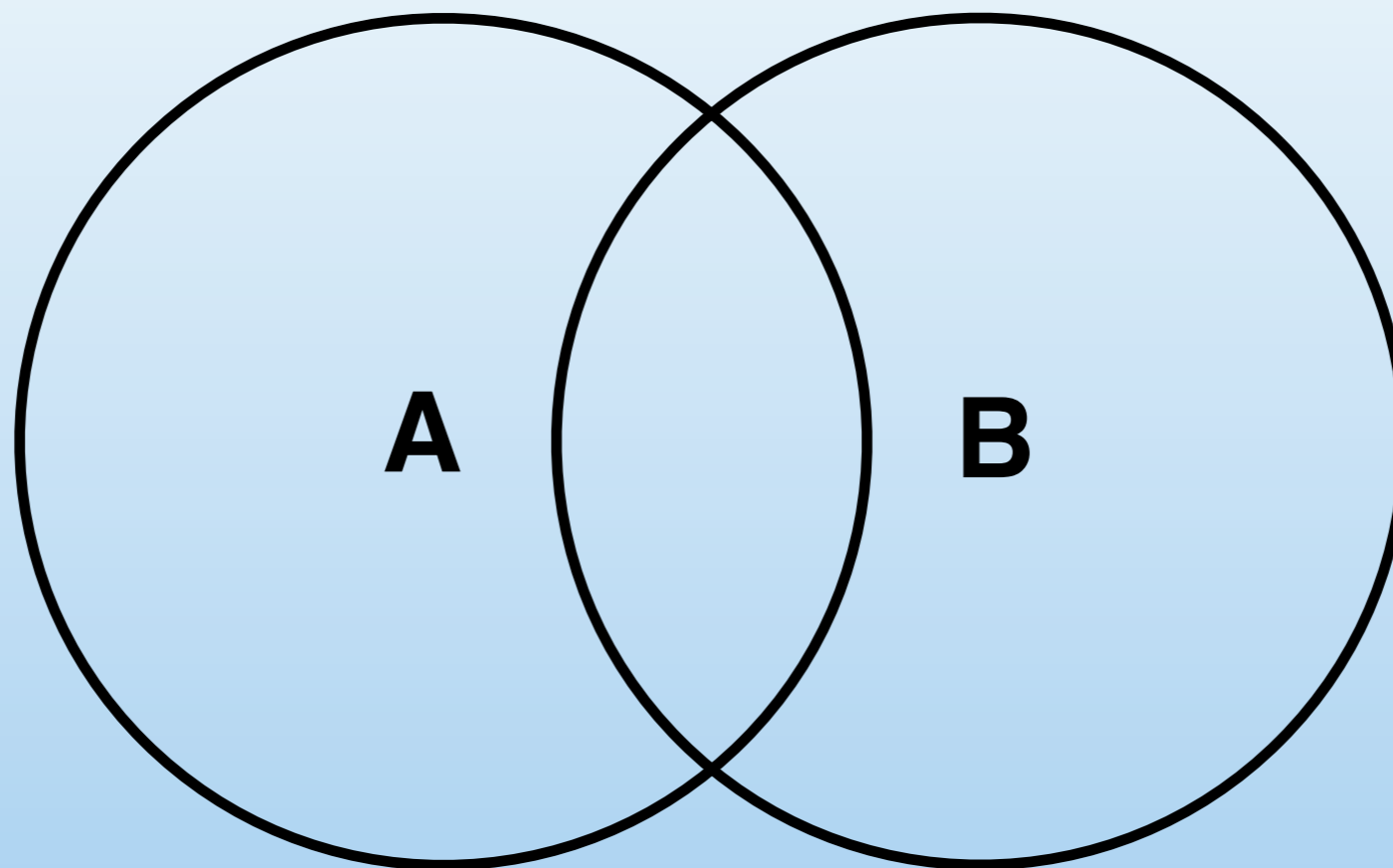
7.  $B \cap C \cap H$

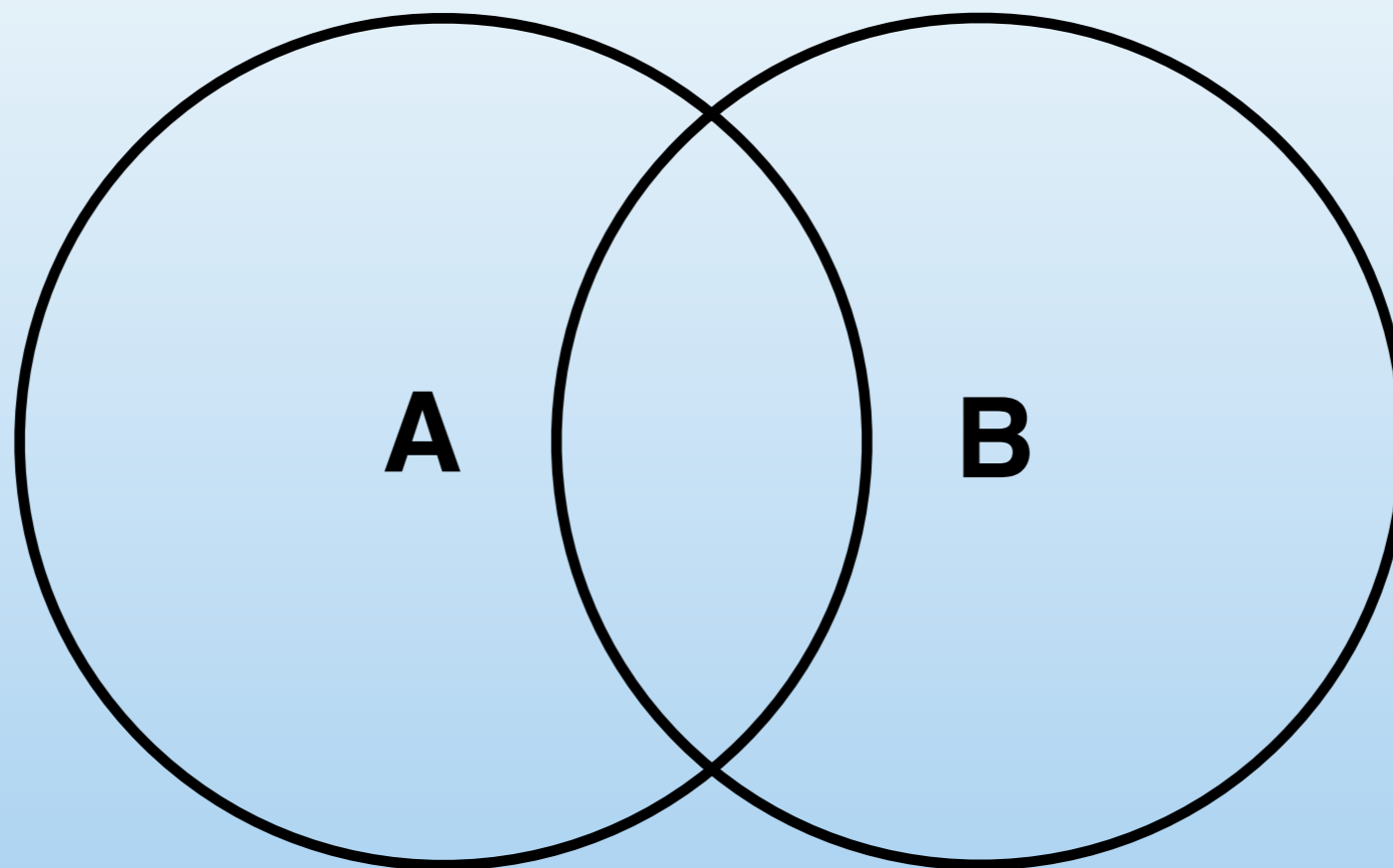
4.  $B \cup F$

8.  $E \cap I$

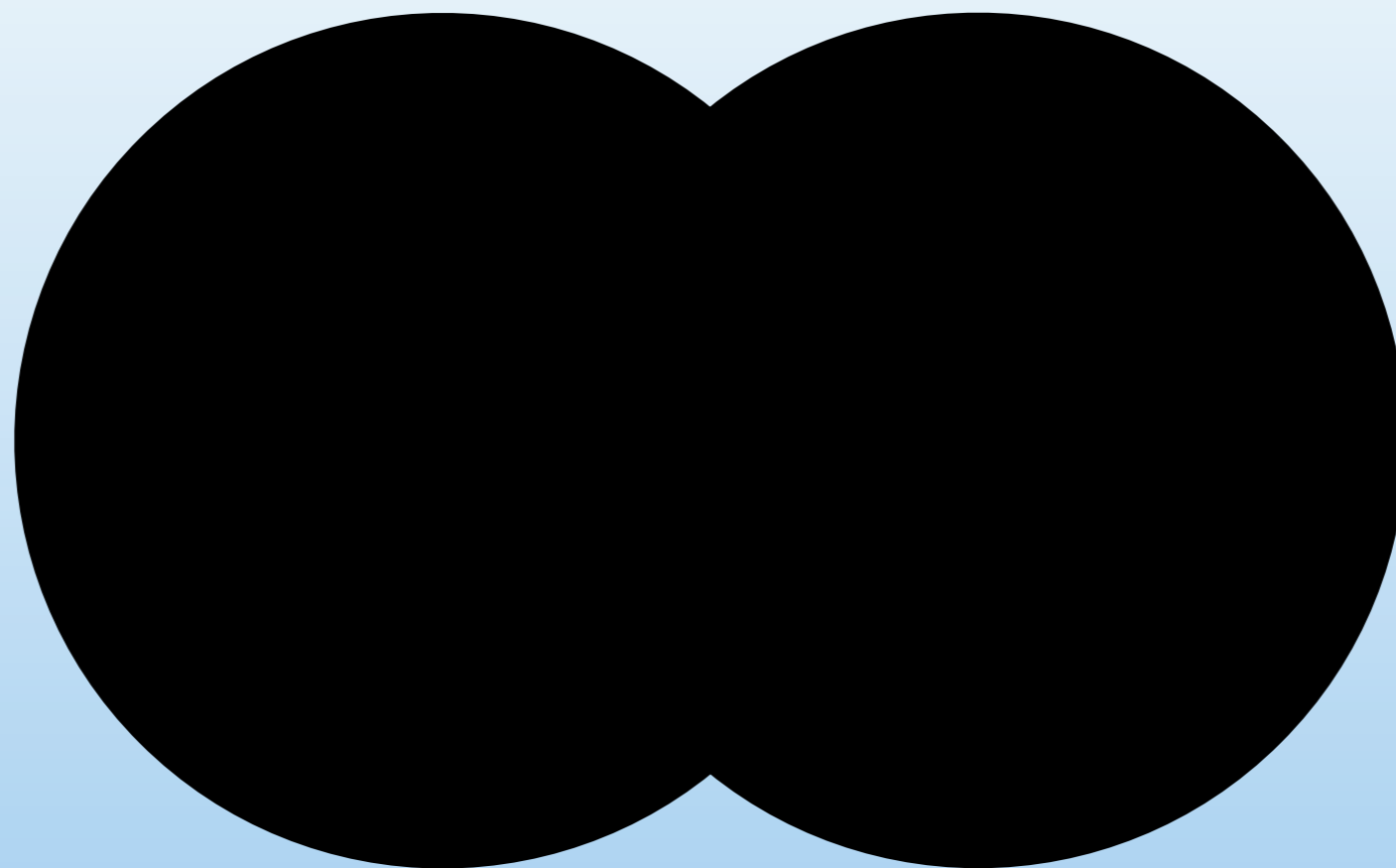




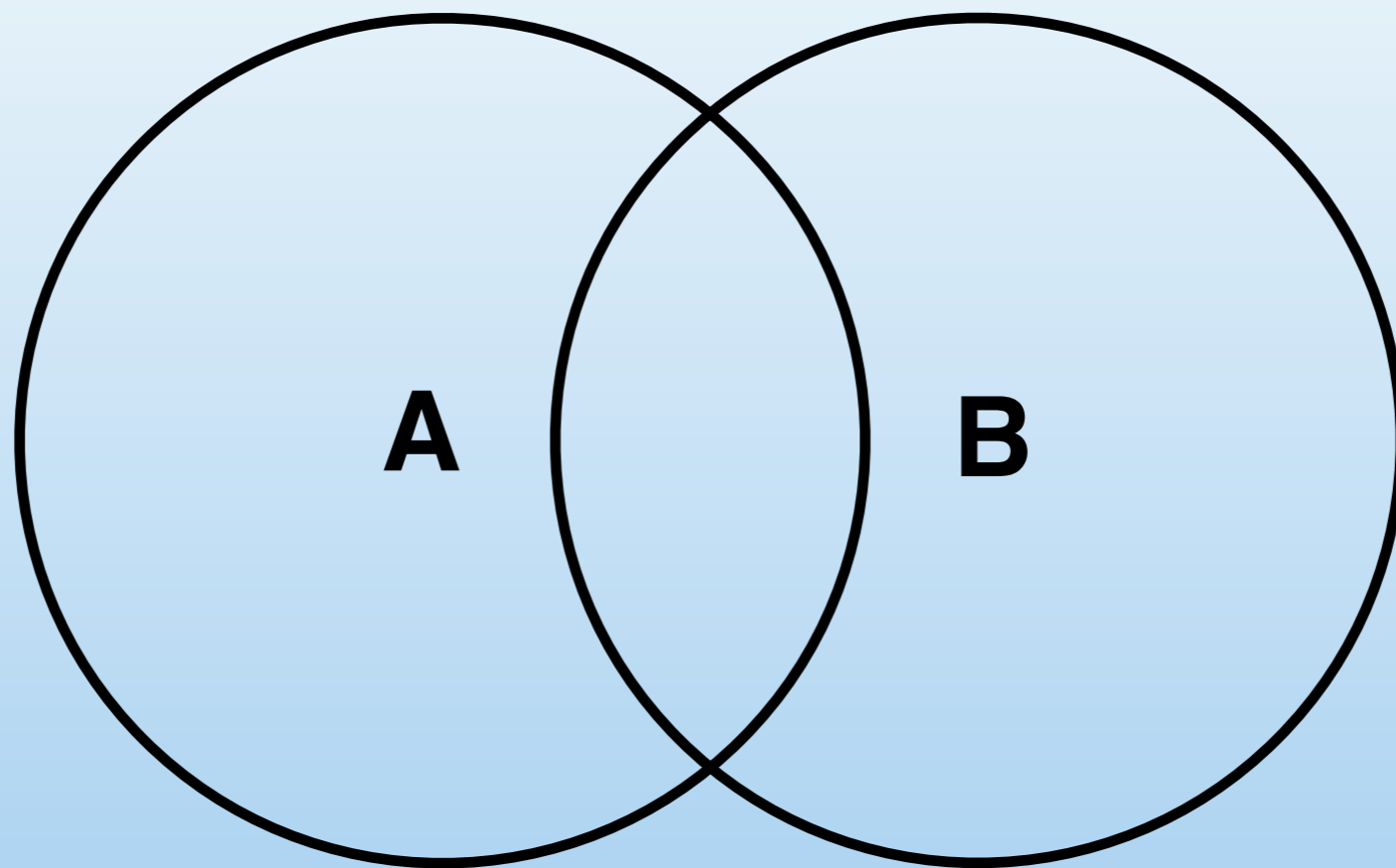




**$A \cup B$**

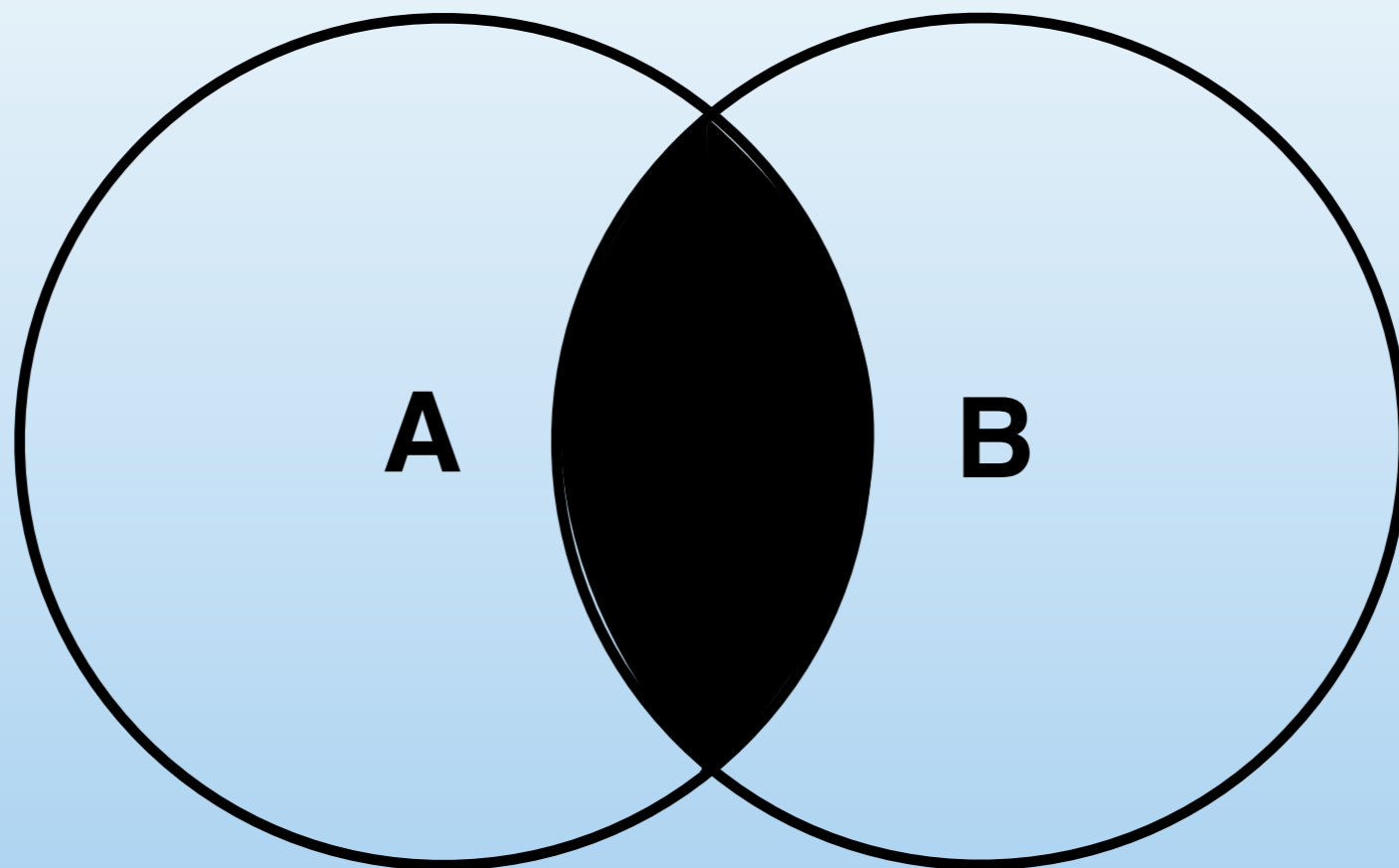


**$A \cup B$**

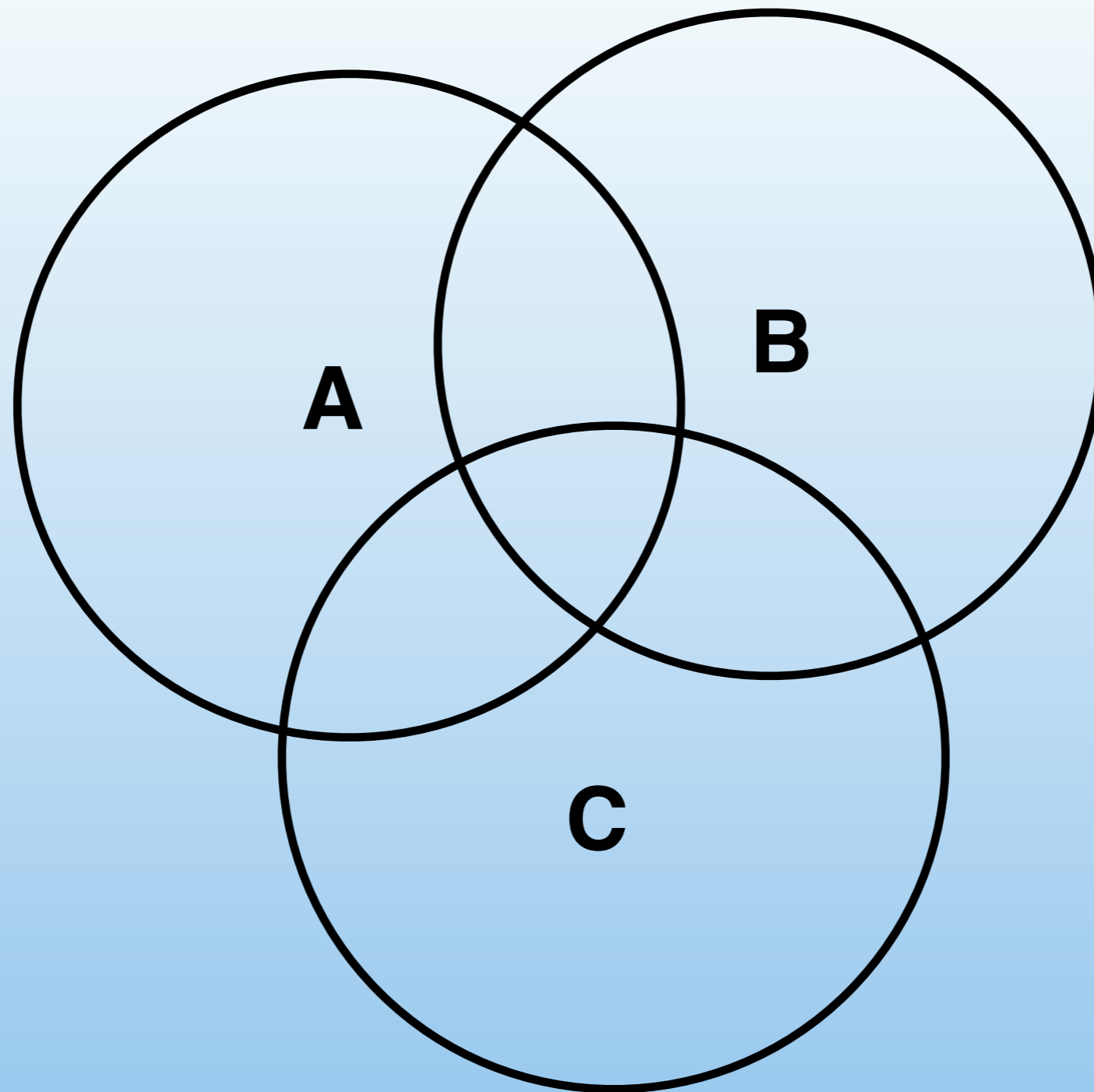


**$A \cap B$**

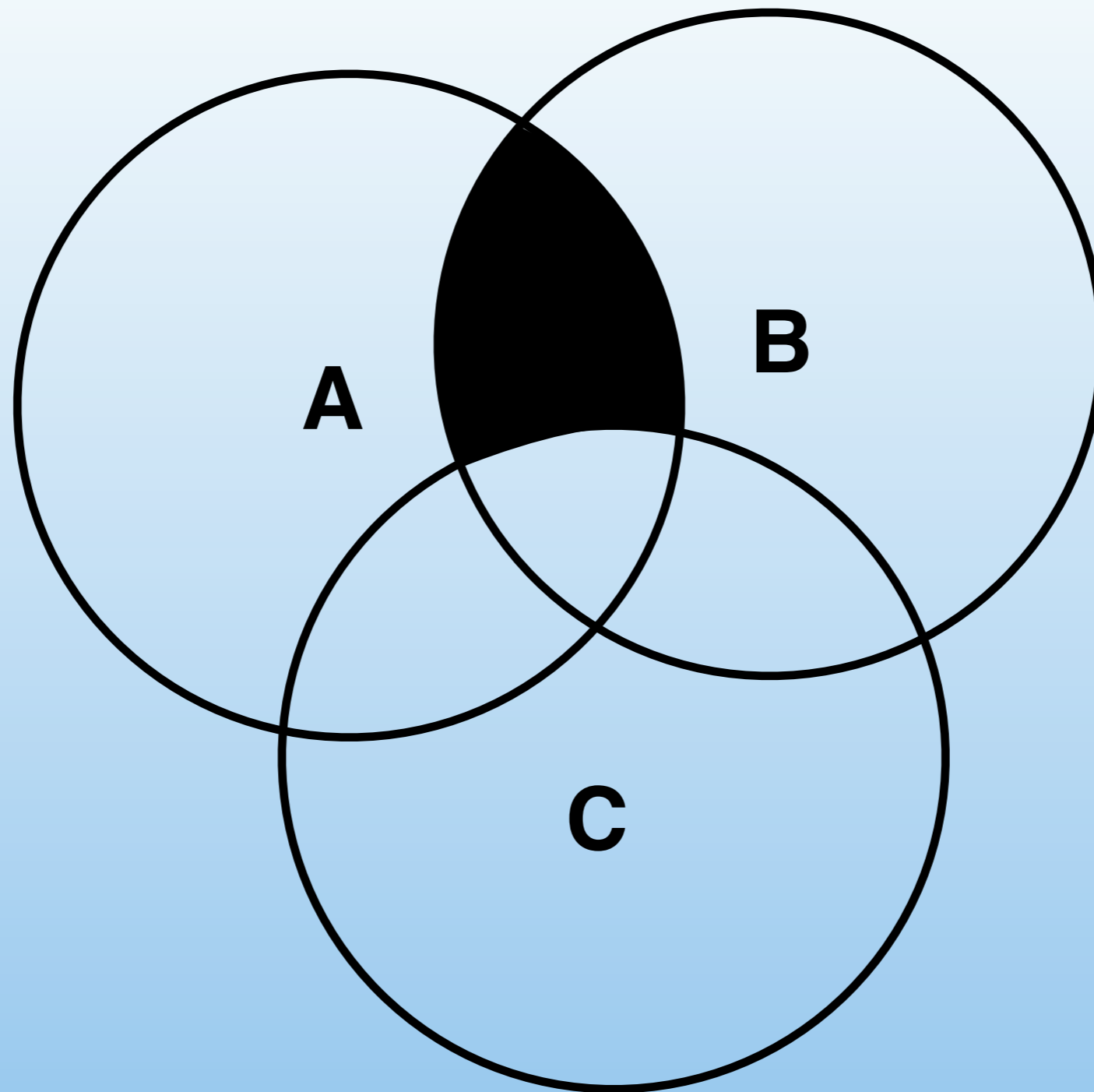




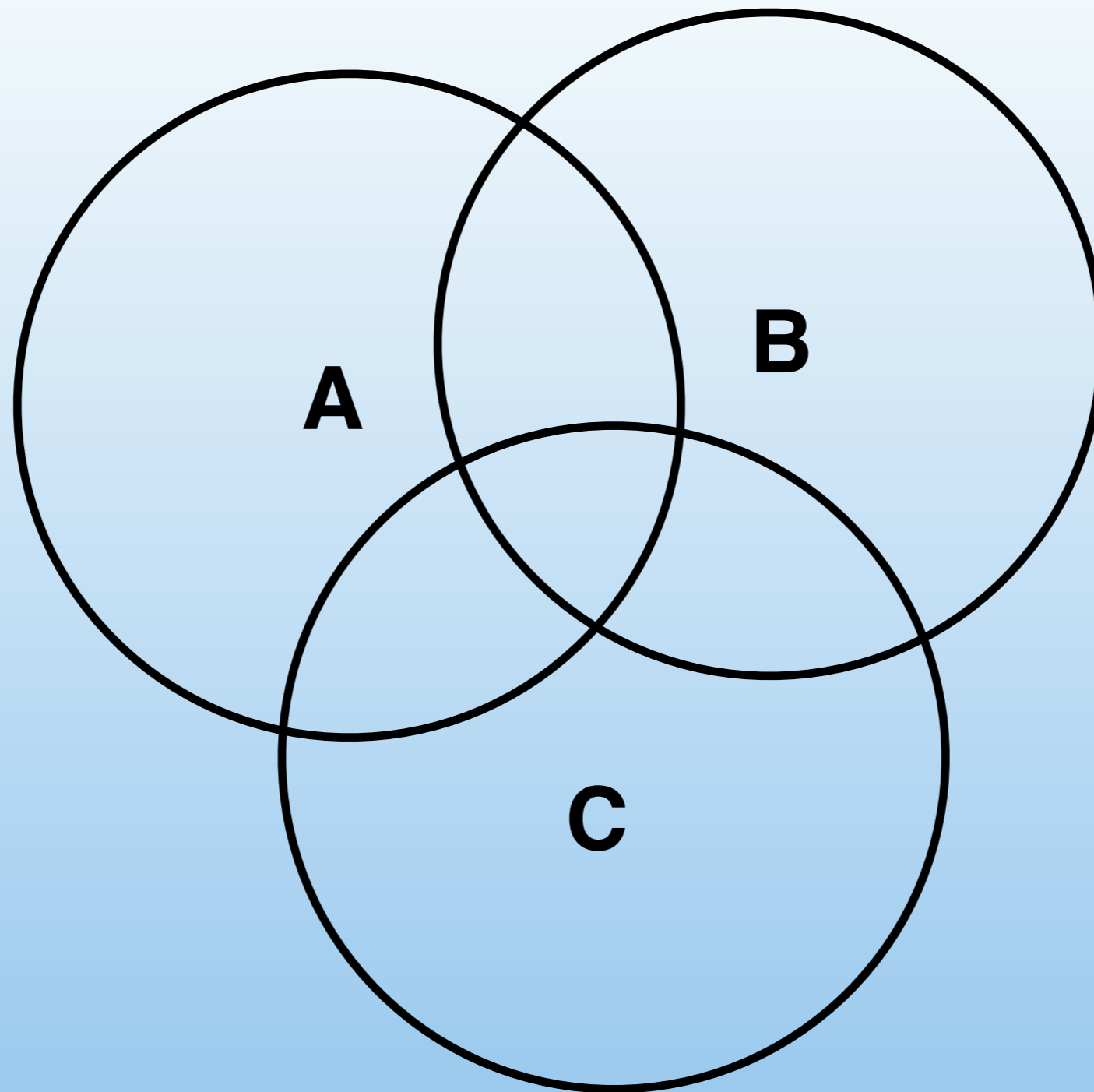
**$A \cap B$**



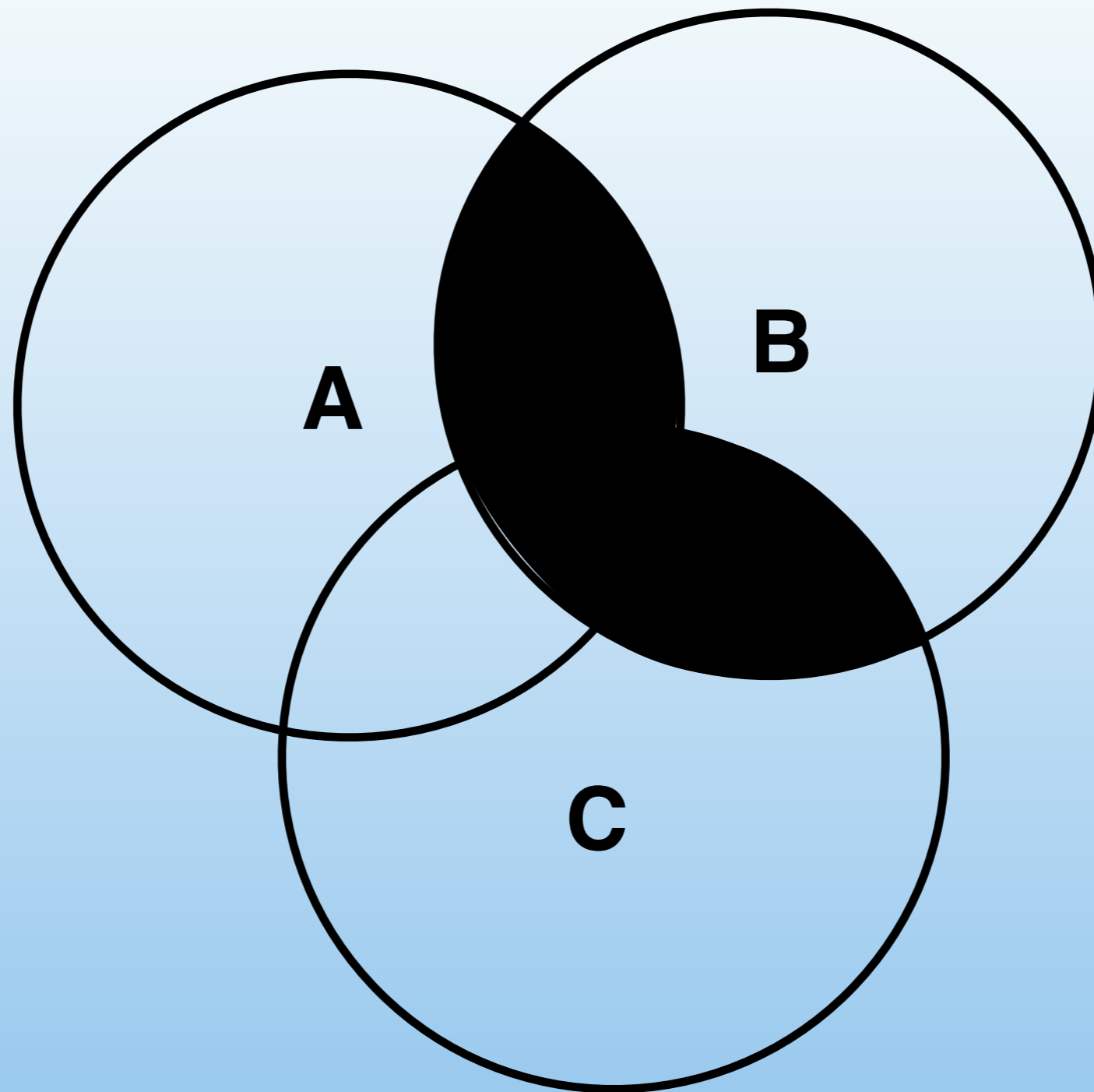
**$A \cap B \cap C'$**



$$A \cap B \cap C'$$



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



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

## **9. Concept Quiz**

## 9. Homework

### **Practice**

create two sets.  
write their intersection and union.

### **Challenge**

# Day 87

## 1. Opener

Simplify:

a) 
$$\frac{5x}{x^2 + 2x} \div \frac{30x^2}{x + 2}$$

b) 
$$\frac{k - 11}{k^2 + 6k - 40} - \frac{5}{k - 4}$$

c) 
$$3\sqrt{24} - \sqrt{54}$$

If  $A =$  boy names and  $B =$  US city names then give five elements of:

d)  $A \cup B$

e)  $A \cap B$

f)  $A' \cap B$

g) What is the only animal that can turn its stomach inside out?



## 9. Homework

### **Practice**

create two sets.  
write their intersection and union.

### **Challenge**

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	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	95	70	57	90	71	81	62	67	95	57	45	53			71
Sixth	57	100	48	71	62	90	86	86	57	86	52	52	70			71

Friday 5/29/9:

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	AVG
Fourth	80	95	70	57	90	71	81	62	67	95	57	57	52	50		70
Sixth	57	100	48	71	62	90	90	86	57	86	52	52	71	33		68

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## **2. Feltron Design Work**