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# Learning Activity Sheet for Mathematics

Quarter 2

Lesson

8

**Worksheet for Mathematics Grade 7**  
**Quarter 2: Lesson 8 (Week 8)**  
**SY 2024-2025**

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**Development Team**

**Writer:**

- Richard M. Lorente (Bicol University)

**Validators:**

- Clemente M. Aguinaldo Jr. (Philippine Normal University – North Luzon)
- Douglas A. Salazar (Mindanao State University – Iligan Institute of Technology)

**Management Team**

Philippine Normal University  
Research Institute for Teacher Quality  
SiMERR National Research Centre

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**LEARNING ACTIVITY SHEET**

<b>Learning Area:</b>	Mathematics	<b>Quarter:</b>	2
<b>Lesson No.:</b>	8	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	Subsets of Real Numbers		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

**I. Activity No. 1:** Identify Me! (15 minutes)

**II. Objectives:**

- Recall union and intersection of sets.
- Describe a set of numbers and identify its real-life applications.

**III. Materials Needed:** Paper and pen

**IV. Instructions:** Find the union or intersection in the following sets.

$$A = \{1, 2, 3\}$$

$$B = \{0\}$$

$$C = \{-3, -2, -1\}$$

$$D = \left\{\frac{1}{2}, \frac{2}{3}, \frac{4}{5}, \frac{3}{2}\right\}$$

$$E = \{0, 1, 2, 3\}$$

$$F = \{0.5, 0.66\dots, 0.8, 1.5\}$$

$$G = \{\sqrt{2}, \sqrt{3}, \sqrt{5}\}$$

$$H = \left\{-3, -2.5, -1, 0, \frac{1}{2}, 2, 3\right\}$$

1.  $A \cup B =$  \_\_\_\_\_

2.  $A \cup B \cup C =$  \_\_\_\_\_

3.  $B \cap E =$  \_\_\_\_\_

4.  $D \cup F =$  \_\_\_\_\_

5.  $G \cap H =$  \_\_\_\_\_

A. Answer the following questions:

1. What are the common characteristics of the numbers in each of the following sets?

1.1 Set A

Answer: The numbers in Set A are \_\_\_\_\_.

1.2 Set C

Answer: The numbers in Set C are \_\_\_\_\_.

1.3 Set D

Answer: The numbers in Set D are \_\_\_\_\_.

1.4 Set E

Answer: The numbers in Set E are \_\_\_\_\_.

2. Can you cite specific uses of these numbers in real life? Give at least one (1).

Answers:

Set A: \_\_\_\_\_

Set C: \_\_\_\_\_

Set D: \_\_\_\_\_

Set E: \_\_\_\_\_

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<b>Lesson No.:</b>	8	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	Subsets of Real Numbers		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

- I. Activity No. 2:** Match Me! (15 minutes)
- II. Objective:** Illustrate real-life applications of real numbers.
- III. Materials Needed:** Paper and Pen
- IV. Instructions:** Match the following situations with their corresponding numerical values.

**Set A****Set B**

- |                                                                             |                  |
|-----------------------------------------------------------------------------|------------------|
| _____ 1. Gain of 10 kilos                                                   | a. $-4$          |
| _____ 2. 5 feet below sea level                                             | b. $\pi$         |
| _____ 3. The constant ratio between circumference and diameter of a circle. | c. $+10$         |
| _____ 4. A share for pizza when divided equally among four children.        | e. $\frac{1}{4}$ |
| _____ 5. A temperature $4^{\circ}C$ below $0^{\circ}C$ .                    | f. $0.75$        |
| _____ 6. About $\frac{3}{4}$ of Earth surface is water-covered              |                  |

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<b>Lesson Title/ Topic:</b>	Subsets of Real Numbers		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

- I. Activity No. 3:** Where Do I Belong. (10 minutes)
- II. Objective:** Determine the different subsets of real numbers.
- III. Materials Needed:** Paper and pen
- IV. Instructions:** Identify to which the following numbers belong by putting a check mark in the corresponding cell. (*Hint: There are numbers that belong to more than one subset.*)

Number	Natural/Counting	Whole	Integer	Rational	Irrational
1. 6					
2. 23.15					
3. -3					
4. 0					
5. $\frac{2}{3}$					
6. $\sqrt{81}$					
7. $\sqrt{13}$					
8. $-\sqrt{36}$					
9. $3\sqrt{3}$					
10. 2.151515 ...					

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<b>Learning Area:</b>	Mathematics	<b>Quarter:</b>	2
<b>Lesson No.:</b>	8	<b>Date:</b>	
<b>Lesson Title/ Topic:</b>	Union and Intersection of Subsets of Real Numbers		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

- I. Activity No. 4:** Knowledge Check (10 minutes)
- II. Objective:** Determine the union or intersection of subsets of real numbers.
- III. Materials Needed:** Paper and pen
- IV. Instructions:** The set  $N$ ,  $W$ ,  $Z$ ,  $Q$ ,  $Q'$ , and  $R$  are the numbers defined in the lesson. Determine which one of these sets is equal to the given set.

1.  $Z \cup Q = \underline{\hspace{2cm}}$

2.  $Z \cap Q = \underline{\hspace{2cm}}$

3.  $N \cap Q' = \underline{\hspace{2cm}}$

4.  $Q' \cup R = \underline{\hspace{2cm}}$

5.  $W \cap N = \underline{\hspace{2cm}}$

6.  $W \cup Z = \underline{\hspace{2cm}}$

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<b>Learning Area:</b>	Mathematics	<b>Quarter:</b>	2
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<b>Lesson Title/ Topic:</b>	Ordering Numbers		
<b>Name:</b>		<b>Grade &amp; Section:</b>	

**I. Activity No. 5:** Compare and Arrange Me! (10 minutes)

**II. Objective:**

1. Compare two real numbers.
2. Arrange a set of real numbers in ascending or descending order.

**III. Materials Needed:** Paper and pen

**IV. Instructions:** Do the following.

1. Tell if the following is true or false. Write your answer in the space provided.

\_\_\_\_\_ a.  $-2.3 > -5$

\_\_\_\_\_ b.  $\frac{13}{5} < 1.5$

\_\_\_\_\_ c.  $0 < \frac{2}{3}$

\_\_\_\_\_ d.  $\sqrt{5} > 1.5$

\_\_\_\_\_ e.  $\pi > \frac{22}{7}$

2. Arrange the given numbers in (a) ascending and (b) descending orders.

$$5, 0, -3, 3.25, \sqrt{5}, \frac{2}{3}, \pi, -5.2$$

Answers:

a. Ascending order: \_\_\_\_\_

b. Descending order: \_\_\_\_\_