

NAME _____

Module 1 Getting Ready for Algebra
Lesson 1 Defining Sets and Real Numbers



guided
practice

Set 1

1. Name a subset of P.

$$P = \{2, 3, 5, 7, 11, 13\}$$

Possible answers: _____

$\{7, 11\}$ $\{2, 3, 11\}$ $\{3, 5, 7\}$

3. What is the union of sets X and V?

$$X = \{3, 4, 6, 9\}$$

$$V = \{3, 7, 10\}$$

$X \cup V = \{3, 4, 6, 7, 9, 10\}$

2. What is the intersection of sets X and Y?

$$X = \{3, 6, 9, 12, 18\}$$

$$Y = \{6, 12, 18, 24, 30\}$$

$X \cap Y = \{6, 12, 18\}$

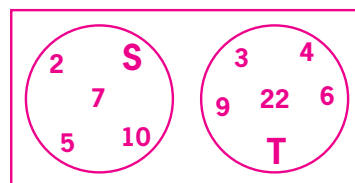
4. Which two sets are disjoint? Draw a Venn

diagram of the two disjoint sets.

$$R = \{1, 2, 4, 6, 9\}$$

$$S = \{2, 5, 7, 10\}$$

$$T = \{3, 4, 6, 9, 22\}$$



S and T are disjoint.

Set 2

1. The days in a month are
- best**
- represented as elements of which real number set?

Natural Numbers

2. Give an example of a whole number that
- is not**
- a natural number.

0

3. Which integers
- are not**
- whole numbers?

$\{\dots, -4, -3, -2, -1\}$

Set 3

1. To which real number sets

does -4 belong?

$$\underline{-4 \in \mathbb{Z}, -4 \in \mathbb{Q}, -4 \in \mathbb{R}}$$

2. To which real number sets

does $\sqrt{5}$ belong?

$$\underline{\sqrt{5} \in \mathbb{S}, \sqrt{5} \in \mathbb{R}}$$

3. To which real number sets

does $\sqrt{4}$ belong?

$$\underline{\sqrt{4} \in \mathbb{N}, \sqrt{4} \in \mathbb{W},}$$

$$\underline{\sqrt{4} \in \mathbb{Z}, \sqrt{4} \in \mathbb{Q},}$$

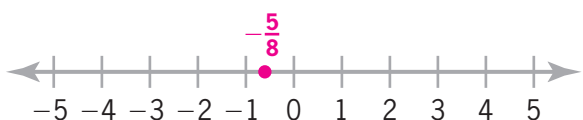
$$\underline{\sqrt{4} \in \mathbb{R}}$$

Set 4

1. Graph
- $2\frac{1}{4}$
- on the number line.



2. Graph
- $-\frac{5}{8}$
- on the number line.



3. Graph 3.8, 2,
- $\sqrt{12}$
- , and
- $\frac{1}{3}$
- on the number line.

