WORKSHEET – DOMAINS AND RANGES OF RELATIONS AND FUNCTIONS

Part 1 – Identify Domains, Ranges, and Functions. Identify the domain and range of each relation given below. Then determine if the relation represents a function. Record your answers in the appropriate spaces provided for each problem.

1. \{(2, 3), (-1, 5), (0, -1), (3, 5), (5, 0)\}
   Domain: ___________________________
   Range: ____________________________
   Function: yes  no

2. \[
\begin{array}{c}
\text{x} \\
2 & 4 & 5 & 9 \\
\text{y} \\
-2 & 0 & 2 & 4
\end{array}
\]
   Domain: __________________________
   Range: ____________________________
   Function: yes  no

3. \[
\begin{array}{c}
\text{x} \\
-3 & 1 & 3 & 5 \\
\text{y} \\
0 & 1 & 2 & 3
\end{array}
\]
   Domain: __________________________
   Range: ____________________________
   Function: yes  no

4. \[
\begin{array}{c}
\text{Domain:} \quad \text{Range:} \quad \text{Function: yes no}
\end{array}
\]

5. \[
\begin{array}{c}
\text{Domain:} \quad \text{Range:} \quad \text{Function: yes no}
\end{array}
\]
Part 2 – Different Representations. Read each problem carefully and perform the indicated task. Also, for each problem, determine if the relation given represents a function and record your answers in the appropriate spaces provided for each problem.

6. Rewrite the relation given to the right as a set of ordered pairs.

Answer:
_________________________________________

Function: yes no

7. Graph the relation given below on the coordinate plane to the right.

Function: yes no

8. Construct a mapping diagram in the space below to represent the following set of ordered pairs.
   (2, -1), (3, 2), (5, 4), (3, -1), (6, 5)

Mapping diagram:

Function: yes no

9. Create a table that is equivalent to the relation graphed on the coordinate plane to the right.

Table:

Function: yes no