



Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## AFTER THIS WORKSHEET YOU CAN

- ✓ Find the domain of a relation.    ✓ Find the range of a relation.    ✓ Recognise a reflexive relation.  
 ✓ Recognise a symmetric relation.

**Section A • Concept Check** • BEGINNER  $4 \times 1 = 4$  \_\_\_\_\_

- 1** Domain of  $R = \{(2,5), (4,7), (6,9)\}$ :  
☐ A.  $\{2,4,6\}$    ☐ B.  $\{5,7,9\}$    ☐ C.  $\{2,5\}$    ☐ D.  $\{9\}$
- 2** Range of  $R = \{(2,5), (4,7), (6,9)\}$ :  
☐ A.  $\{5,7,9\}$    ☐ B.  $\{2,4,6\}$    ☐ C.  $\{7\}$    ☐ D.  $\{\}$
- 3** Is  $R = \{(1,1), (2,2), (3,3)\}$  on  $\{1,2,3\}$  reflexive?  
☐ A. Yes   ☐ B. No   ☐ C. Only partly  
☐ D. Cannot tell
- 4** Is  $R = \{(1,2), (2,1), (1,1), (2,2)\}$  on  $\{1,2\}$  symmetric?  
☐ A. Yes   ☐ B. No   ☐ C. Only partly  
☐ D. Cannot tell

**Section B • Problem Solving** • INTERMEDIATE  $2 + 3 \times 3 = 11$  \_\_\_\_\_

- 5** The \_\_\_\_\_ is the set of first coordinates.
- 6** The \_\_\_\_\_ is the set of second coordinates.
- 7** Find the domain of  $R = \{(2,5), (4,7), (6,9)\}$ .

- 8** Find the range of  $R = \{(2,5), (4,7), (6,9)\}$ .

- 9** Is  $R = \{(1,1), (2,2), (3,3)\}$  on  $\{1,2,3\}$  reflexive?

**Section C • Challenge** • CHALLENGE 5 \_\_\_\_\_

- 10** Is  $R = \{(1,2), (2,1), (1,1), (2,2)\}$  on  $\{1,2\}$  symmetric?

Reflection — the most useful thing I learned: \_\_\_\_\_

A \_\_\_/4   B \_\_\_/11   C \_\_\_/5   **Total \_\_\_/20**

Teacher's Signature \_\_\_\_\_

Parent's Signature \_\_\_\_\_

ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A   2-A   3-A   4-A | 5 domain   6 range   7 =  $\{2,4,6\}$    8 =  $\{5,7,9\}$    9 = Yes | 10 = Yes