

Session 1, Open-response Question

17. These are input-output tables. Each table has a different rule. When a number n is put in, it is changed by the rule so that a different number comes out. Table 1 has been completed for you.

a. Complete Tables 2 and 3 in your Student Answer Booklet.

Table 1

| | | | | | | |
|--------|---------|----|---|----|----|----|
| Input | n | 8 | 1 | 5 | 9 | 21 |
| Output | $n + 5$ | 13 | 6 | 10 | 14 | 26 |

Input-Output Rule: $n + 5$

Table 2

| | | | | | |
|--------|--------------|----|----|---|----|
| Input | n | 2 | | 9 | 7 |
| Output | $n \times 9$ | 18 | 54 | | 63 |

Input-Output Rule: $n \times 9$

Table 3

| | | | | | |
|--------|-----|----|----|---|---|
| Input | n | 36 | 16 | 8 | |
| Output | | 9 | | 2 | 7 |

Input-Output Rule: _____

- b. Write an input-output rule for Table 3 using the letter n .
- c. Use a new rule to make up your own input-output table. Complete Your Table in your Student Answer Booklet. Be sure to include your rule using the letter n . (You may NOT use the rules from Tables 1, 2, or 3.)

Your Table

| | | | | | |
|--------|-----|--|--|--|--|
| Input | n | | | | |
| Output | | | | | |

Input-Output Rule: _____

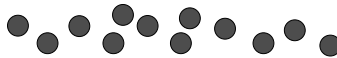
Reporting Category/Substrand for Item 17: *Patterns, Relations, and Functions/Patterns and Relationships* (p. 119)

Session 2, Multiple-choice Questions

18. There are 60 pieces of art paper and 42 children. If each child gets one piece of art paper, how many pieces will be left for another project?
- A. 9
 - B. 18
 - C. 27
 - D. 42

*Reporting Category/Substrand for Item 18: **Number Sense/Whole Number Computation (p. 118)***

Use the picture of marbles below to answer question 19.



19. There were 12 marbles on the floor. Lisa picked up $\frac{1}{2}$ of the 12 marbles and Tom picked up $\frac{1}{4}$ of the 12 marbles. How many marbles were picked up?
- A. 2
 - B. 5
 - C. 9
 - D. 10

*Reporting Category/Substrand for Item 19: **Number Sense/Fractions and Decimals (p. 118)***

20. Marco is practicing for track and field day. If he practices for 360 minutes, what would you do to find out how many HOURS Marco practiced?
- A. Add 60 to the total number of minutes.
 - B. Subtract 60 from the total number of minutes.
 - C. Multiply the total number of minutes by 60.
 - D. Divide the total number of minutes by 60.

*Reporting Category/Substrand for Item 20: **Number Sense/Concepts of Whole Number Operations (p. 118)***