Name _____   Date _____

1. Solve.

    a. $4 \times 1 = \underline{4}$

    b. $4 \times 0 = \underline{0}$

    c. $\underline{5} \times 1 = 5$

    d. $\underline{0} \div 5 = 0$

    e. $6 \times \underline{1} = 6$

    f. $\underline{0} \div 6 = 0$

    g. $0 \div 7 = \underline{0}$

    h. $7 \times \underline{0} = 0$

    i. $8 \div \underline{1} = 8$

    j. $\underline{1} \times 8 = 8$

    k. $9 \times \underline{1} = 9$

    l. $9 \div \underline{9} = 1$

2. Match each equation with its solution.

$9 \times 1 = w$		$w = 6$
$w \times 1 = 6$		$w = 7$
$7 \div w = 1$		$w = 8$
$1 \times w = 8$		$w = 9$
$w \div 8 = 0$		$w = 1$
$9 \div 9 = w$		$w = 0$

Lesson 16:   Reason about and explain arithmetic patterns using units of 0 and 1
                 as they relate to multiplication and division.
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3. Let $c = 8$. Then determine whether the equations are true or false.

a. $c \times 0 = 8$	Example: False.
b. $0 \times c = 0$	True
c. $c \times 1 = 8$	True
d. $1 \times c = 8$	True
e. $0 \div c = 8$	False
f. $8 \div c = 1$	True
g. $0 \div c = 0$	True
h. $c \div 0 = 8$	False

4. Rajan says that any number multiplied by 1 equals that number.

a. Write a multiplication equation using n to represent Rajan's statement.

$$n \times 1 = n$$

b. Using your equation from Part (a), let $n = 5$ and draw a picture to show that the new equation is true.

$$n \times 1 = n \qquad \text{if } n = 5$$
$$5 \times 1 = 5$$

COMMON CORE

Lesson 16:   Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division.

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