Name _____ Date _____

1. a. Skip-count by nine.

9 _____, _____, _____, 36 _____, _____, _____, _____, 72 _____, _____, _____

b. Look at the *tens* place in the count-by. What is the pattern?

c. Look at the *ones* place in the count-by. What is the pattern?

2. Complete to make true statements.

a. 10 more than 0 is 10,
1 less is 9.
1 × 9 = 9

b. 10 more than 9 is 19,
1 less is 18.
2 × 9 = _____

c. 10 more than 18 is _____,
1 less is _____.
3 × 9 = _____

d. 10 more than 27 is _____,
1 less is _____.
4 × 9 = _____

e. 10 more than 36 is _____,
1 less is _____.
5 × 9 = _____

f. 10 more than 45 is _____,
1 less is _____.
6 × 9 = _____

g. 10 more than 54 is _____,
1 less is _____.
7 × 9 = _____

h. 10 more than 63 is _____,
1 less is _____.
8 × 9 = _____

i. 10 more than 72 is _____,
1 less is _____.
9 × 9 = _____

j. 10 more than 81 is _____,
1 less is _____.
10 × 9 = _____

3. a. Analyze the equations in Problem 2. What is the pattern?

b. Use the pattern to find the next 4 facts. Show your work.

11 × 9 = 12 × 9 = 13 × 9 = 14 × 9 =

c. Kent notices another pattern in Problem 2. His work is shown below. He sees the following:

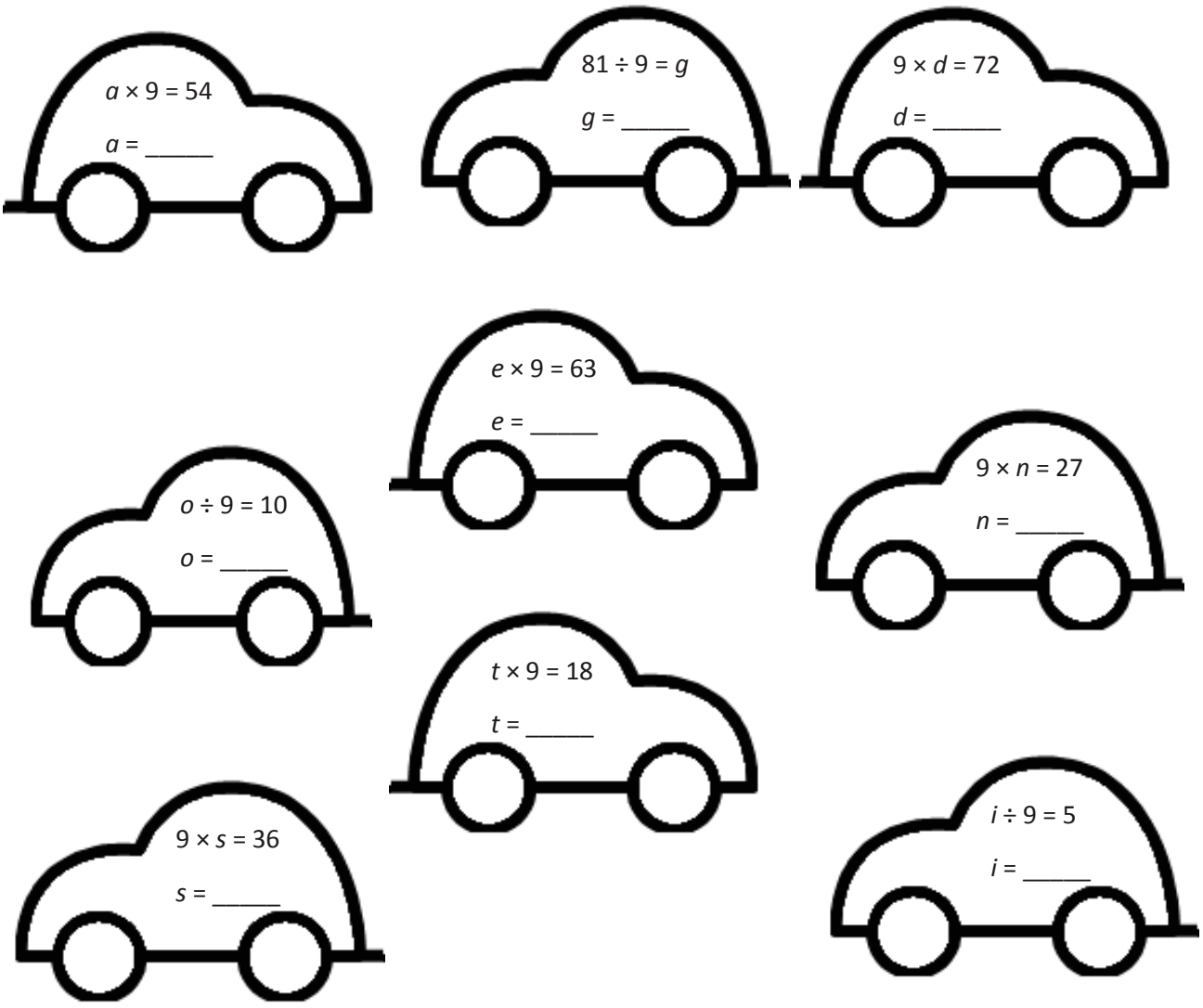
- The tens digit in the product is 1 less than the number of groups.
- The ones digit in the product is 10 minus the number of groups.

		Tens digit	Ones digit
2 × 9 = 18	→	1 = 2 – 1	8 = 10 – 2
3 × 9 = 27	→	2 = 3 – 1	7 = 10 – 3
4 × 9 = 36	→	3 = 4 – 1	6 = 10 – 4
5 × 9 = 45	→	4 = 5 – 1	5 = 10 – 5

Use Kent's strategy to solve 6 × 9 and 7 × 9.

d. Show an example of when Kent's pattern doesn't work.

4. Each equation contains a letter representing the unknown. Find the value of each unknown. Then, write the letters that match the answers to solve the riddle.



How do you make one vanish?

____	____	____	____	“	____	”	____	____	____	____	____	,	____	____	____	____	____	!
6	8	8	6		9		6	3	8	45	2		4	9	90	3	7	