

**Multiplying By 12 – 19:**

A. You can multiply by 12, 13, 14, 15, 16, 17, 18, or 19 the same way. For ease of writing, these numbers will be referred to as 1a, where a is the last digit.

1. When multiplying "n" x 1a, first multiply a by the last digit of "n". Write this number down, carry if necessary.
2. Now multiply the remaining digits by a and add back to "n". Write this result.

Ex [1]  $52 \times 17 =$ \_\_\_\_\_.

- a)  $7 \times 2 = 14$  so write 4 and carry \*1.
- b)  $7 \times 5 = 35$  so add  $35 + 52 = 87 + *1 = 88$ . Write 88.
- c) The answer is 884.

Ex [2]  $84 \times 16 =$ \_\_\_\_\_.

- a)  $6 \times 4 = 24$  so write 4 and carry \*2.
- b)  $6 \times 8 = 48 + *2 = 50$ .  $50 + 84 = 134$ . Write 134.
- c) The answer is 1344.

Ex [3]  $113 \times 12 =$ \_\_\_\_\_.

- a)  $2 \times 3 = 6$  so write 6.
- b)  $2 \times 11 = 22$ .  $22 + 113 = 135$ . Write 135.
- c) The answer is 1356.

B. Sometimes, as in Ex [2], it is easier to add the carried number first, before adding back to "n".