Squaring A Number Ending In 8:

A. This method comes from algebra:

$$(10a - 2)^2 = 100(a)(a - 1) + 10(6a) + 4$$

B. Using numbers instead of variables we get the following:

1. Write down 4.
2. Add 1 to the ten's digit and multiply by 6. Write this number d own, carry if necessary.
3. Multiply the number in the ten's digit by that number plus 1. Write this result.

Ex [1] 68^2 =_____.

a) Write down 4.

b) 6 x (6 + 1) = 42. Write 2, carry *4.

c) 6 x (6 + 1) = 42 + *4 = 46. Write 46.

d) The answer is 4624.

Ex [2] 118^2 =_____.

a) Write down 4.

b) 6 x (11 + 1) = 72. Write 2, carry *7.

c) 11 x (11 + 1) = 132 + *7 = 139. Write 139. See *Multiplying by 11*.

d) The answer is 13924.