Adding Squared Numbers In The Form: $a^2 + (3a)^2$

A. This method is very easy since from algebra we know:

$$a^2 + (3a)^2 = 10a^2$$

B. Therefore, you square the smaller number, then multiply by 10 for the answer.

Ex [1] $32^2 + 96^2 =$_____.

a) $32^2 = 1024$. See *Squaring Numbers*.

b) 1024 x 10 = 10240.

c) The answer is 10240.

Ex [2] $49^2 + 147^2 =$_____.

a) $49^2 = 2401$. See *Squaring Numbers in the Range: 40 - 49*.

b) 2401 x 10 = 24010.

c) The answer is 24010.