

Multiplying By 25:

A. Multiplying by 25 is one of the basic multiplication methods in number sense.

1. You can rewrite 25 to be $100 \div 4$. So the first step is to divide by 4 and write this number down.
2. Depending on the remainder, referred to as $(n \text{ MOD } 4)$, the last numbers are the following:
 - a) If $(n \text{ MOD } 4) = 0$ then the last numbers are 00.
 - b) If $(n \text{ MOD } 4) = 1$ then the last numbers are 25.
 - c) If $(n \text{ MOD } 4) = 2$ then the last numbers are 50.
 - d) If $(n \text{ MOD } 4) = 3$ then the last numbers are 75.

B. Examples:

Ex [1] $25 \times 84 = \underline{\hspace{2cm}}$.

- a) $84 \div 4 = 21$. Write 21.
- b) Since there is no remainder the last numbers are 00.
- c) The answer is 2100.

Ex [2] $113 \times 25 = \underline{\hspace{2cm}}$.

- a) $113 \div 4 = 18$ with a remainder of 1. Write 18.
- b) The last numbers are 25.
- c) The answer is 1825.