## Learning Goal:

By the end of this lesson I should be able to MULTIPLY single and double-digit positive numbers together using an AREA MODEL, WITHOUT the use of a calculator (technology).

Example Strategies: Find the PRODUCT of $14 \times 21$

## Area Model

Break the original multiplying numbers up into smaller friendly numbers; find the smaller areas and sum the smaller areas up for the final product.

$$
\begin{aligned}
14 \times 21 & =200+10+80+4 \\
& =294
\end{aligned}
$$

|  | 20 | +1 |
| :---: | :---: | :---: |
| 0 | $20 \times 16$ | $10 \times 1$ |
| + | 200 | $=10$ |
| + | $4 \times 20$ | $4 \times 1$ |
| +80 | $=4$ |  |

## Skills Practice:

Use the Area Model to multiply the following:
(a)
$6 \times 18$

(c)
$18 \times 27$

(b) $22 \times 34$

(d) $32 \times 65$


