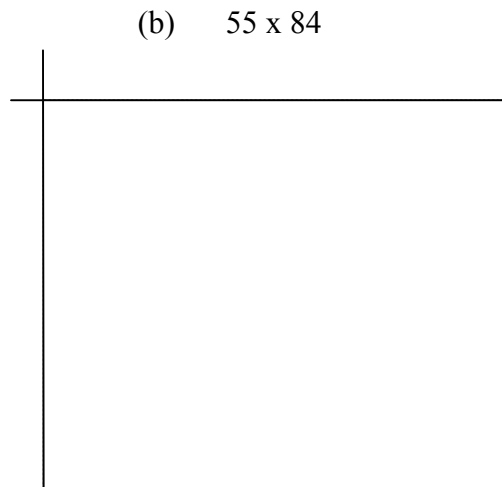
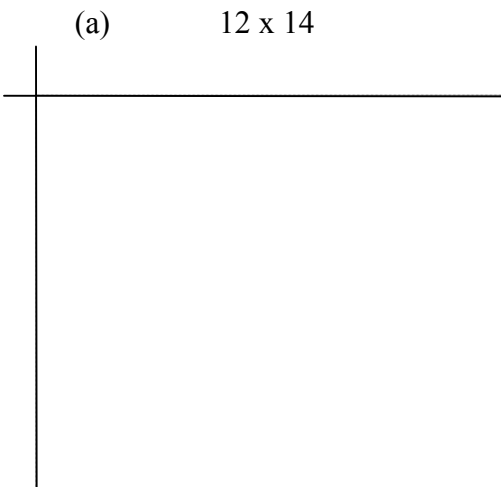


**Learning Goal:**

By the end of this lesson I should be able to EVALUATE multiplication problems WITHOUT the use of a calculator (technology).

**Models:** (i) Area model, (ii) column model (multiplying), (iii) number model, (iv) distributive prop.

Use the Area Model to multiply the following:



**Skills Practice:** Find the Product of the following using the Column Model:

(a) 
$$\begin{array}{r} 18 \\ \times 7 \\ \hline \end{array}$$

(b) 
$$\begin{array}{r} 78 \\ \times 9 \\ \hline \end{array}$$

(c) 
$$\begin{array}{r} 67 \\ \times 12 \\ \hline \end{array}$$

**Skills Practice:** Find the product of the following:

(a)  $(4)(9)$

(b)  $(18)(38)$

(c)  $(77)(45)$

**Skills Practice:** Find the product of the following:

(a)  $(5)(0.4)$                       (b)  $(12)(0.3)$                       (c)  $(16)(0.25)$

**Skills Practice:** Find the product of the following:

(a)  $(2.5)(1.4)$                       (b)  $(18)(2.3)$                       (c)  $(20.4)(3.25)$

**Skills Practice:** Find the product of the following:

(a)  $(-2)(7)$                       (b)  $(-8)(-5)$                       (c)  $(4)(-2)(-5)$

**Skills Practice:** Find the product of the following:

(a)  $(-22)(7.5)$                       (b)  $(125)(4.2)$                       (c)  $(256)(-58)$