

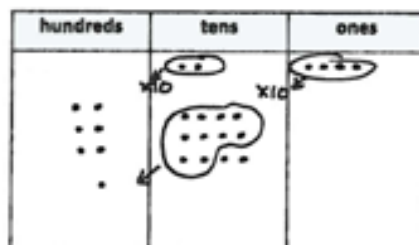
Name Jack

Date _____

1. Use the associative property to rewrite each expression. Solve using disks and then complete the number sentences.

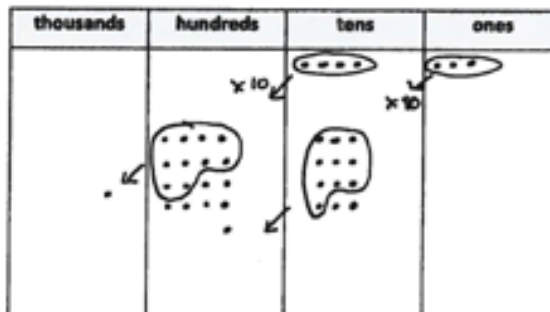
a. 30×24

$$\begin{aligned} &= (\underline{3} \times 10) \times 24 \\ &= \underline{3} \times (10 \times 24) \\ &= \underline{720} \end{aligned}$$



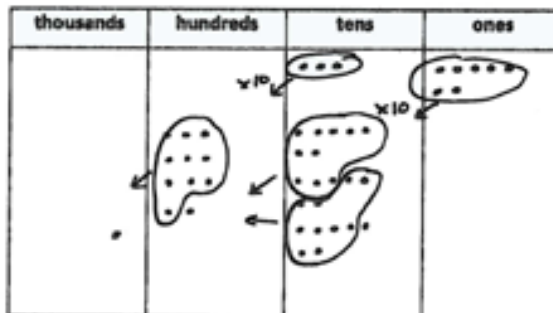
b. 40×43

$$\begin{aligned} &= (4 \times 10) \times \underline{43} \\ &= 4 \times (10 \times \underline{43}) \\ &= \underline{1,720} \end{aligned}$$



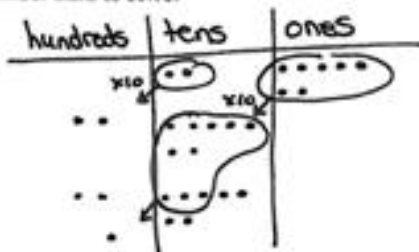
c. 30×37

$$\begin{aligned} &= (3 \times \underline{10}) \times \underline{37} \\ &= 3 \times (10 \times \underline{37}) \\ &= \underline{1,110} \end{aligned}$$

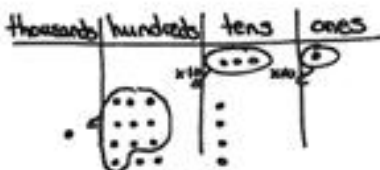


2. Use the associative property and number disks to solve.

a. 20×27
 $= (2 \times 10) \times 27$
 $= 2 \times (10 \times 27)$
 $= 540$



b. 40×31
 $= (4 \times 10) \times 31$
 $= 4 \times (10 \times 31)$
 $= 1,240$



3. Use the associative property without number disks to solve.

a. 40×34
 $= (4 \times 10) \times 34$
 $= 4 \times (10 \times 34)$
 $= 1,360$

$$\begin{array}{r} 340 \\ \times 4 \\ \hline 1,360 \end{array}$$

b. 50×43
 $= (5 \times 10) \times 43$
 $= 5 \times (10 \times 43)$
 $= 2,150$

$$\begin{array}{r} 430 \\ \times 5 \\ \hline 2,150 \end{array}$$

4. Use the distributive property to solve the following problems. Distribute the second factor.

a. 40×34
 $= (40 \times 30) + (40 \times 4)$
 $= 1,200 + 160$
 $= 1,360$

b. 60×25
 $= (60 \times 20) + (60 \times 5)$
 $= 1,200 + 300$
 $= 1,500$

