

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Represent the following expressions with disks, regrouping as necessary, writing a matching expression, and recording the partial products vertically.

a.  $3 \times 24$

tens	ones

b.  $3 \times 42$

hundreds	tens	ones

c.  $4 \times 34$

hundreds	tens	ones

2. Represent the following expressions with disks, regrouping as necessary. To the right, record the partial products vertically.

a.  $4 \times 27$

hundreds	tens	ones

b.  $5 \times 42$

hundreds	tens	ones

3. Cindy says she found a shortcut for doing multiplication problems. When she multiplies  $3 \times 24$ , she says, “ $3 \times 4$  is 12 ones, or 1 ten and 2 ones. Then, there’s just 2 tens left in 24, so add it up, and you get 3 tens and 2 ones.” Do you think Cindy’s shortcut works? Explain your thinking in words, and justify your response using a model or partial products.

ten thousands	thousands	hundreds	tens	ones

ten thousands place value chart