Name _____ Date _____

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

   a. 2×424

hundreds	tens	ones
● ● ● ●	● ●	● ● ● ●

   $$
   \begin{array}{r}
   4 \quad 2 \quad 4 \\
   \times \quad\quad\quad 2 \\
   \hline
   \end{array}
   $$

   → $2 \times$ ___ ones
   → $2 \times$ ___ _____
   → ___ $\times$ ___ _____

   $+$ _____

   $2 \times$ ___ _____ $+$ $2 \times$ ___ _____ $+$ $2 \times$ ___ ones

   b. 3×424

hundreds	tens	ones

   c. $4 \times 1,424$

2. Represent the following expressions with disks, using either method shown in class, regrouping as necessary. To the right, record the partial products vertically.

   a. 2×617

   b. 5×642

   c. $3 \times 3,034$

3. Every day, Penelope jogs three laps around the playground to keep in shape. The playground is rectangular with a width of 163 m and a length of 320 m.

   a. Find the total amount of meters in one lap.

   b. Determine how many meters Penelope jogs in three laps.

Answer Key

1. Disks drawn and partial products recorded
   a. 4 hundreds, 2 tens, 4; 848
   b. 3 × 4 hundreds + 3 × 2 tens + 3 × 4 ones; 1,272
   c. 4 × 1 thousand + 4 × 4 hundreds + 4 × 2 tens + 4 × 4 ones; 5,696

2. Disks drawn and partial products recorded
   a. 1,234
   b. 3,210
   c. 9,102

3. a. 966 m
   b. 2,898 m