Name _____

Another Look!

Golf balls come in a box of 12. How many golf balls are in 14 boxes? Remember to estimate so you can tell if your answer is reasonable.
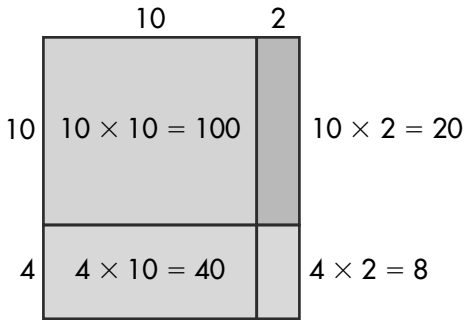
	10	2
10	$10 \times 10 = 100$	$10 \times 2 = 20$
4	$4 \times 10 = 40$	$4 \times 2 = 8$

$$
\begin{array}{r}
12 \\
\times \ 14 \\
\hline
8 \\
40 \\
20 \\
+ \ 100 \\
\hline
168
\end{array}
$$

$4 \times 2 = 8$ ones
4×1 ten $= 4$ tens
10×2 ones $= 20$
10×1 ten $= 100$

There are 168 golf balls in the boxes.

For **1–8**, estimate. Find all the partial products. Then add to find the final product. Draw area models as needed.

1. $\begin{array}{r} 16 \\ \times \ \ 15 \\ \hline \end{array}$

2. $\begin{array}{r} 16 \\ \times \ \ 12 \\ \hline \end{array}$

3. $\begin{array}{r} 19 \\ \times \ \ 13 \\ \hline \end{array}$

4. $\begin{array}{r} 24 \\ \times \ \ 12 \\ \hline \end{array}$

5. $\begin{array}{r} 32 \\ \times \ \ 23 \\ \hline \end{array}$

6. $\begin{array}{r} 79 \\ \times \ \ 47 \\ \hline \end{array}$

7. $\begin{array}{r} 23 \\ \times \ \ 46 \\ \hline \end{array}$

8. $\begin{array}{r} 82 \\ \times \ \ 74 \\ \hline \end{array}$

**9. Reasoning** Why can the calculations to the right of each partial product be thought of as simpler problems?

$$
\begin{array}{r}
34 \\
\times\ 24 \\
\hline
16 \\
120 \\
80 \\
+\ 600 \\
\hline
816
\end{array}
$$

4×4
4×3 tens
2 tens $\times 4$
2 tens $\times 3$ tens

10. Explain the mistakes in the calculation below. Show the correct calculation.

$$
\begin{array}{r}
12 \\
\times\ 13 \\
\hline
6 \\
3 \\
20 \\
+\ 10 \\
\hline
39
\end{array}
$$

11. A movie theater charges $10 for an adult ticket and $9 for a child ticket. The goal is to make $1,200 on adult tickets each week. Did the theater make its goal this week? How much more or less than the goal did the theater make?

Weekday Movie Matinee Ticket Sales

Adults / Children

	Mon.	Tue.	Wed.	Thu.	Fri.
Adults	13	18	15	10	17
Children	12	5	28	12	8
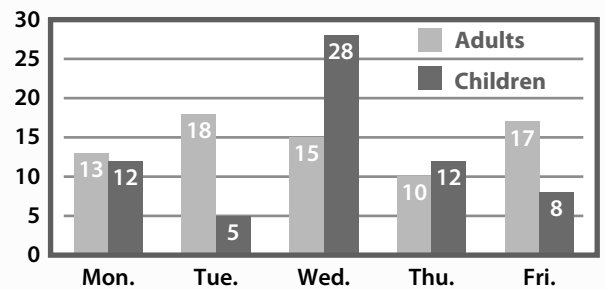
12. Higher Order Thinking A golf practice range has 245 balls. The owner bought a carton of golf balls. How many golf balls does the owner have after buying the carton?

DATA

Golf Balls

12 balls to a box

15 boxes to a crate

5 crates to a carton

Assessment Practice

13. Which set of numbers has the missing partial product and the final product? 4.NBT.2.5

$$
\begin{array}{r}
12 \\
\times\ 18 \\
\hline
16 \\
80 \\
20 \\
+\ \square \\
\hline
\square
\end{array}
$$

Ⓐ 100; 216

Ⓑ 10; 126

Ⓒ 106; 212

Ⓓ 100; 261

14. Select all the equations in which 15 is the missing factor. 4.NBT.2.5

☐ $b \times 15 = 225$

☐ $32 \times b = 480$

☐ $51 \times b = 765$

☐ $b \times 41 = 1{,}025$

☐ $65 \times b = 910$