Complete the following word problems. Show your work in the space provided.

1. The fourth graders at Westfield Elementary enjoyed square dancing lessons last week. There were 87 students learning new dance steps. How many legs were cutting the rug?

\[
\begin{array}{c}
174 \\
\times \frac{1}{4} \\
\hline
43 \quad \text{legs}
\end{array}
\]

2. Mr. White put the dancers into groups of four for the first round of square dancing. How many groups did he have? How many students were left over?

\[
\begin{array}{c}
21 \\
\times 4 \\
\hline
84 \\
\frac{84}{5} \\
\hline
3 \quad \text{groups with 3 left over}
\end{array}
\]

3. In the last dance, Mr. White put the students into groups of eight, with four girls and four boys. During the dance each boy had to swing each girl in the group. How many different boy-girl combinations could be created during this dance?

\[
\begin{array}{c}
80 \\
\times 4 \\
\hline
320 \\
\div 4 \\
\hline
80 \quad \text{combinations}
\end{array}
\]

4. If a fourth grade student took a step every second during the square dance lessons, how many steps were taken in one minute? How many steps were taken in one hour? How many total steps did all 87 students take in one hour?

\[
\begin{array}{c}
60 \div 60 \\
\times 44 \\
\hline
3600 \\
\times 5 \\
\hline
125 \cdot 200 \\
\hline
307,200 \\
\end{array}
\]

5. Square Dancing is an excellent activity for strengthening the heart. After 30 minutes of continued dancing the average person's heart rate increases 75%. If the average heart rate is 72 beats per minute, approximately how many times will the heart beat per minute after dancing?

\[
\begin{array}{c}
12 \\
\times 0.75 \\
\hline
9 \\
+ 3 \quad \frac{60}{4} \\
\hline
\frac{54.00}{52} \quad \text{beats per minute}
\end{array}
\]