1. Circle each expression that is not equivalent to the expression in **bold**.
   a. $16 \times 29$
      
      $29$ sixteens
      $16 \times (30 - 1)$
      $(15 - 1) \times 29$
      $(10 \times 29) - (6 \times 29)$
   
   b. $38 \times 45$
      
      $(38 + 40) \times (38 + 5)$
      $(38 \times 40) + (38 \times 5)$
      $45 \times (40 + 2)$
      45 thirty-eights
   
   c. $74 \times 59$
      
      $74 \times (50 + 9)$
      $74 \times (60 - 1)$
      $(74 \times 5) + (74 \times 9)$
      59 seventy-fours

2. Solve using mental math. **Draw a tape diagram and fill in the blanks to show your thinking. The first one is partially done for you.**

   a. $19 \times 25 = \underline{19}$ twenty-fives
      
      Think: 20 twenty-fives $- 1$ twenty-five.
      
      $= (\underline{20} \times 25) - (\underline{1} \times 25)$
      $= 500 - 25$
      $= 475$

   b. $24 \times 11 = \underline{11}$ twenty-fours
      
      Think: 10 twenty fours $+ 1$ twenty four
      
      $= (\underline{10} \times 24) + (\underline{1} \times 24)$
      $= 240 + 24$
      $= 264$
c. \( 79 \times 14 = \) ______ fourteen

\[
\begin{array}{cccccccccc}
& & & & & 1 & 4 & 1 & 4 & 1 & 4
\
& & & & & 1 & 2 & 3 & & & & 7 & 8 & 7 & 9 & 8 & 0
\end{array}
\]

Think: \( 80 \) fourteen minus 1 fourteen

\[
= (\_\_\_80 \times 14) - (\_\_\_1 \times 14)
\]

\[
= 1120 - 14
\]

\[
= 1106
\]

d. \( 21 \times 75 = \) ______ seventy-fives

\[
\begin{array}{cccccccccc}
& & & & & 7 & 5 & 7 & 5 & 7 & 5
\
& & & & & 1 & 2 & 3 & & & & 2 & 0 & 2 & 1
\end{array}
\]

Think: \( 20 \) seventy-fives plus 1 seventy-five

\[
= (\_\_\_20 \times 75) + (\_\_\_1 \times 75)
\]

\[
= 1500 + 75
\]

\[
= 1575
\]

3. Define the unit in word form and complete the sequence of problems as was done in the lesson.

a. \( 19 \times 15 = 19 \) ______

\[
\begin{array}{cccccccccc}
& & & & & 1 & 5 & 1 & 5 & 1 & 5
\
& & & & & 1 & 2 & 3 & & & & 1 & 9 & 2 & 0
\end{array}
\]

Think: 20 ______ minus 1 fifteen

\[
= (20 \times \_\_\_15) - (1 \times \_\_\_15)
\]

\[
= 300 - 15
\]

\[
= 285
\]

b. \( 14 \times 15 = 14 \) ______

\[
\begin{array}{cccccccccc}
& & & & & 1 & 5 & 1 & 5 & 1 & 5
\
& & & & & 1 & 2 & 3 & & & & 1 & 3 & 1 & 4
\end{array}
\]

Think: 10 ______ plus 4 ______

\[
= (10 \times \_\_\_15) + (4 \times \_\_\_15)
\]

\[
= 150 + 60
\]

\[
= 210
\]
Lesson 4 Problem Set

4. How can $14 \times 50$ help you find $14 \times 49$?

You could do $14 \times 50 = 700$ then take away 1 fourteen. $-\frac{14}{700}$

5. Solve mentally.
   a. $101 \times 15 = 1515$
      
   b. $18 \times 99 = 1782$
      
6. Saleem says $45 \times 32$ is the same as $(45 \times 3) + (45 \times 2)$. Explain Saleem's error using words, numbers, and/or pictures.

   Sample:
   
   $45 \times 32 = 30$ forty-fives + 2 forty-fives
   $(45 \times 3) + (45 \times 2) = 3$ forty-fives + 2 forty-fives
   
   This is not the same value.

   $1 \frac{174}{300} + 126 = 300 \times 29$

7. Juan delivers 174 newspapers every day. Edward delivers 126 more newspapers each day than Juan.
   a. Write an expression to show how many newspapers Edward will deliver in 29 days.

   $\text{Edward} = (174 \times 29) + (126 \times 29) = 300 \times 29$

   b. Use mental math to solve. Show your thinking.

   $300 \times 20 = 6000 \ 300 \times 9 = 2700 \ 6000 + 2700 = 8700$
   He will deliver 8,700 newspapers in 29 days.