Name $\qquad$ Date $\qquad$

1. Circle each expression that is not equivalent to the expression in bold.
a. $\mathbf{1 6 \times 2 9}$
29 sixteens
$16 \times(30-1)$
$(15-1) \times 29$
$(10 \times 29)-(6 \times 29)$
b. $\mathbf{3 8 \times 4 5}$
$(38+40) \times(38+5) \quad(38 \times 40)+(38 \times 5) \quad 45 \times(40+2) \quad 45$ thirty-eights
c. $74 \times 59$
$74 \times(50+9) \quad 74 \times(60-1) \quad(74 \times 5)+(74 \times 9) \quad 59$ seventy-fours
2. Solve using mental math. Draw a tape diagram and fill in the blanks to show your thinking. The first one was done for you.

c. $79 \times 14=$ $\qquad$ fourteens
d. $21 \times 75=$ $\qquad$ seventy-fives

Think: $\qquad$ fourteens - 1 fourteen
$\qquad$ $\times 14)-$ $\qquad$ $\times 14$ )
$=$ $\qquad$ - $\qquad$ $=$ $\qquad$
Think: ___ seventy-fives + ___ seventy-five
$\qquad$
$=(\ldots \times 75)+(\ldots \times 75)$
$=$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$
3. Define the unit in word form and complete the sequence of problems as was done in Problems 3-4 in the lesson.

4. How can $14 \times 50$ help you find $14 \times 49$ ?
5. Solve mentally.
a. $101 \times 15=$ $\qquad$
b. $18 \times 99=$ $\qquad$
6. Saleem says $45 \times 32$ is the same as $(45 \times 3)+(45 \times 2)$. Explain Saleem's error using words, numbers, and pictures.
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.
b. Use mental math to solve. Show your thinking.

Name $\qquad$ Date $\qquad$

1. Solve using mental math. Draw a tape diagram and fill in the blanks to show your thinking.

| a. $49 \times 11=\ldots$ elevens | b. $25 \times 13=\ldots \ldots$ twenty-fives |
| :---: | :---: |
| Think: 50 elevens - 1 eleven | Think: __ twenty-fives + ___ twenty-fives |
| $=(\ldots \ldots$ 11) - | $(\ldots \ldots 25)+(\ldots$ |
| $=$ | $=\ldots+$ |

Name $\qquad$ Date $\qquad$

1. Circle each expression that is not equivalent to the expression in bold.
a. $\mathbf{3 7} \times 19$
37 nineteens
$(30 \times 19)-(7 \times 29)$
$37 \times(20-1)$
$(40-2) \times 19$
b. $26 \times 35$
35 twenty-sixes
$(26+30) \times(26+5)$
$(26 \times 30)+(26 \times 5)$
$35 \times(20+60)$
c. $\mathbf{3 4 \times 8 9}$
$34 \times(80+9)$
$(34 \times 8)+(34 \times 9)$
$34 \times(90-1)$
89 thirty-fours
2. Solve using mental math. Draw a tape diagram and fill in the blanks to show your thinking. The first one was done for you.

c. $49 \times 12=$ $\qquad$ twelves
d. $12 \times 25=$ $\qquad$ seventy-fives

Think: $\qquad$ twelves - 1 twelves
$\qquad$ $\times 12)-(\ldots$ $\times 12$ )
$\qquad$ - $\qquad$ $=$ $\qquad$
Think: $\qquad$ twenty-fives + $\qquad$ twenty-fives
$=$
 $\underline{\square}$

$$
=(\ldots \times 25)+(\ldots \times 25)
$$

$=$ $\qquad$ $+$ $+$ $\qquad$ $=$ $\qquad$
3. Define the unit in word form and complete the sequence of problems as was done in Problems 3-4 in the lesson.

| a. $29 \times 12=29$ <br> Think: 30 $\qquad$ - 1 $\qquad$ $=30 \times \ldots \quad)-(1 \times \ldots \quad)$ $=\square$ $\qquad$ $\qquad$ $\qquad$ | b. $11 \times 31=31$ $\qquad$ <br> Think: 30 $\qquad$ $+1$ $\qquad$ $=\left(30 \times \_\right.$_ $)+(1 \times$ ___ $)$ <br> $=$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$ |
| :---: | :---: |
| c. $19 \times 11=19$ $\qquad$ <br> Think: 20 $\qquad$ $-1$ $\qquad$ $=(20 \times \ldots \quad)-(1 \times \ldots \quad)$ $=\quad-\quad$ $\qquad$ $\qquad$ $\qquad$ | d. $50 \times 13=13$ <br> Think: 10 $\qquad$ $+3$ $\qquad$ $=(10 \times \ldots \quad)+(3 \times \ldots)$ $=$ $\qquad$ - |

4. How can $12 \times 50$ help you find $12 \times 49$ ?
5. Solve mentally.
a. $16 \times 99=$ $\qquad$
b. $20 \times 101=$ $\qquad$
6. Joy is helping her father to build a deck that measures 14 ft by 19 ft . Find the area of the deck using a mental strategy. Explain your thinking.
7. The Lason School turns 101 years old in June. In order to celebrate, they ask each of the 23 classes to collect 101 items and make a collage. How many total items will be in the collage? Use mental math to solve. Explain your thinking.
