

Name _____

Date _____

1. Circle each expression that is not equivalent to the expression in
- bold**
- .

a. **37×19**

37 nineteens

 $(30 \times 19) - (7 \times 29)$ $37 \times (20 - 1)$ $(40 - 2) \times 19$ b. **26×35**

35 twenty-sixes

 $(26 + 30) \times (26 + 5)$ $(26 \times 30) + (26 \times 5)$ $35 \times (20 + 60)$ c. **34×89** $34 \times (80 + 9)$ $(34 \times 8) + (34 \times 9)$ $34 \times (90 - 1)$

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.

a. $19 \times 50 =$ _____ fifties

50	50	50	...	50	50
1	2	3	...	19	20

Think: 20 fifties – 1 fifties

$$= (\text{_____} \times 50) - (\text{_____} \times 50)$$

$$= \text{_____} - \text{_____} = \text{_____}$$

b. $11 \times 26 =$ _____ twenty-sixes

Think: _____ twenty-sixes + _____ twenty-sixes

$$= (\text{_____} \times 26) + (\text{_____} \times 26)$$

$$= \text{_____} + \text{_____} = \text{_____}$$

<p>c. $49 \times 12 =$ _____ twelves</p> <p>Think: _____ twelves – 1 twelves</p> <p>$= (\text{_____} \times 12) - (\text{_____} \times 12)$</p> <p>$=$ _____ $-$ _____ $=$ _____</p>	<p>d. $12 \times 25 =$ _____ seventy-fives</p> <p>Think: _____ twenty-fives + _____ twenty-fives</p> <p>$= (\text{_____} \times 25) + (\text{_____} \times 25)$</p> <p>$=$ _____ $+$ _____ $=$ _____</p>
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3. Define the unit in word form and complete the sequence of problems as was done in Problems 3–4 in the lesson.

<p>a. $29 \times 12 = 29$ _____</p> <p>Think: 30 _____ $- 1$ _____</p> <p>$= (30 \times \text{_____}) - (1 \times \text{_____})$</p> <p>$=$ _____ $-$ _____ $=$ _____</p>	<p>b. $11 \times 31 = 31$ _____</p> <p>Think: 30 _____ $+ 1$ _____</p> <p>$= (30 \times \text{_____}) + (1 \times \text{_____})$</p> <p>$=$ _____ $+$ _____ $=$ _____</p>
<p>c. $19 \times 11 = 19$ _____</p> <p>Think: 20 _____ $- 1$ _____</p> <p>$= (20 \times \text{_____}) - (1 \times \text{_____})$</p> <p>$=$ _____ $-$ _____ $=$ _____</p>	<p>d. $50 \times 13 = 13$ _____</p> <p>Think: 10 _____ $+ 3$ _____</p> <p>$= (10 \times \text{_____}) + (3 \times \text{_____})$</p> <p>$=$ _____ $-$ _____ $=$ _____</p>

4. How can 12×50 help you find 12×49 ?
5. Solve mentally.
- a. $16 \times 99 =$ _____
- b. $20 \times 101 =$ _____
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.