



# Multiply Numbers Greater than 20

Let's multiply numbers that are greater than 20.



## Warm-up

### Number Talk: Three Times Some Numbers

Find the value of each expression mentally.

- $3 \times 10$

- $3 \times 20$

- $3 \times 50$

- $3 \times 25$

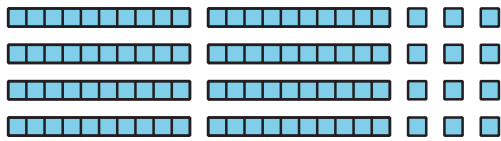


## Activity 1

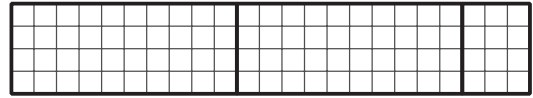
### $4 \times 23$ , Represented

1. Here is how Clare and Andre represented  $4 \times 23$ .

**Clare**



**Andre**



- a. How does each representation show  $4 \times 23$ ?

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- b. How could you use Clare's base-ten diagram to find the value of  $4 \times 23$ ?

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c. How could you use Andre's area diagram to find the value of  $4 \times 23$ ?

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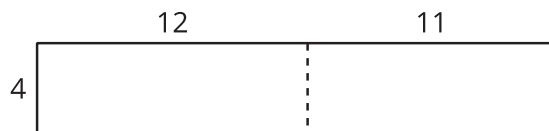
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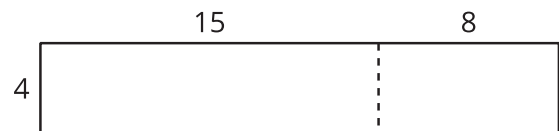
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2. Diego tried different ways to partition, or split, a diagram to help him find the value of  $4 \times 23$ .

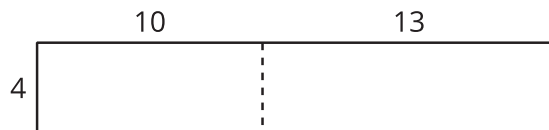
**A**



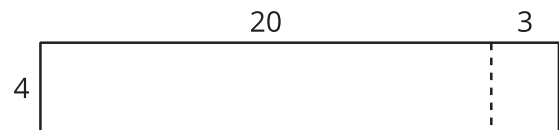
**B**



**C**



**D**



a. What do you notice about the numbers in his diagrams?

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b. Which diagram would you use to find the value of  $4 \times 23$ ? Explain your reasoning.

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3. Find the value of  $3 \times 28$ . Show your thinking using diagrams, symbols, or other representations.



## Activity 2

### Some Fine Products

1. To find the value of  $2 \times 37$ , Mai started by writing this equation:

$$2 \times 30 = 60$$

Describe or show what Mai could do to finish finding the value of  $2 \times 37$ .

2. Find the value of each product. Show your reasoning.

a.  $3 \times 32$

b.  $2 \times 43$

c.  $4 \times 22$

d.  $3 \times 29$



## Activity 3

### Play Close to 100, Multiplication

Play Close to 100, Multiplication with a partner.

1. Place the cards facedown.
2. Each player draws 4 cards.
3. Each player chooses 2 cards to complete the factors in that round's equation. The goal is to make a product as close to 100 as possible. Each player writes their 2 factors and their product.
4. The player whose product is closest to 100 wins the round.
5. Play 5 rounds. The player who wins the most rounds wins the game.

Game 1

Round 1

$$\boxed{\phantom{00}} \times 1 \boxed{\phantom{00}} = \underline{\phantom{000}}$$

Round 2

$$\boxed{\phantom{00}} \times 1 \boxed{\phantom{00}} = \underline{\phantom{000}}$$

Round 3

$$\boxed{\phantom{00}} \times 1 \boxed{\phantom{00}} = \underline{\phantom{000}}$$

Round 4

$$\square \times 1 \square = \underline{\hspace{2cm}}$$

Round 5

$$\square \times 1 \square = \underline{\hspace{2cm}}$$

## Game 2

### Round 1

$$\square \times 2 \square = \underline{\quad}$$

### Round 2

$$\square \times 2 \square = \underline{\quad}$$

### Round 3

$$\square \times 2 \square = \underline{\quad}$$

### Round 4

$$\square \times 2 \square = \underline{\quad}$$

### Round 5

$$\square \times 2 \square = \underline{\quad}$$

