

**Lesson 3-3**  
Multiply 3-Digit by 2-Digit Numbers

A local charity collected 100 cans of food every day for 10 days. How many cans did they collect in all? Write a number sentence to solve the problem. Use the area model to help you.

*In 10 days  
100 cans  
4 days 682 cans*

*163 x 14 = 2282*

*100 x 10 = 1000*

*163 x 4 = 652*

*1000 + 652 = 1652*

*1652 + 630 = 2282*

**Look Back!** *2,282 cans collected*

*Compare your product to your estimate.*

**How Do You Multiply 3-Digit Numbers by 2-Digit Numbers?**

Look! A bakery sold 100 loaves of bread every day for 10 days. How many loaves did they sell in all?

**Step 1:** Multiply by the ones, and regroup if necessary.

**Step 2:** Multiply by the tens, and regroup if necessary.

**Step 3:** Add the products.

**Guided Practice:** *389 x 12 = x*  
*400 x 10 = 4,000*  
*No. 389 rounds to 400. 400 x 10 is a better estimate.*

**Guided Practice**

**Do You Understand?** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

*1,200 seats - 800 = 400*

**Do You Know How?** *10,966*

**Independent Practice**

1.  $11 \times 22 = 242$

2.  $13 \times 11 = 143$

3.  $15 \times 12 = 180$

4.  $17 \times 13 = 221$

5.  $19 \times 14 = 266$

6.  $21 \times 15 = 315$

7.  $23 \times 16 = 368$

8.  $25 \times 17 = 425$

9.  $27 \times 18 = 486$

10.  $29 \times 19 = 551$

**Math Practices and Problem Solving**

21. **Health and Science** How many times does a heart beat in 1 hour?

22. **Math** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

23. **Math** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

24. **Math** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

25. **Math** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

26. **Math** A theater can hold 1,200 people at most. There are 800 people at the theater. How many more seats are needed for the theater to be full?

①  $540 \times 30 = 5$   
 $500 \times 30 = 15,000$

③  $236 \times 46 = x$   
 $200 \times 50 = 10,000$

*236 x 46 = 10,856*

⑤  $951$   
 $1,000$

*951 + 1,000 = 1,951*

$540$   
 $\times 30$   

---

 $16,200 = 540 \times 30$   
 $16,200$  seats.

⑧  $892 \times 18 = m$   
 $900 \times 20 = 18,000$

$892$   
 $\times 18$   

---

 $7136 = 892 \times 8$   
 $+ 8920 = 892 \times 10$   

---

 $16,056$

⑩  $6 \text{ plants} \times 6 \text{ trays} = 36 \text{ plants}$   
 $18 \text{ Saturday} + 21 \text{ Sunday} = 39 \text{ sold}$

$36 \times 39 = 1,404$

$36 \times 40 = 1,440$   
 $1,440 - 36 = 1,404$

⑪  $108 \times 19 = 6$   
 $100 \times 20 = 2,000$

$108$   
 $\times 19$   

---

 $972$   
 $+ 1,080$   

---

 $2,052$

Tricia does not have enough bricks. She needs 52 more.

$$\begin{aligned} & \times 62 = n \\ & \times 60 = 60,000 \end{aligned}$$

$$\begin{array}{r} 3 \\ 951 \\ \hline 62 \end{array}$$

$$902 = 951 \times 2$$

$$060 = 951 \times 60$$

$$962$$