

Frequently Asked Questions

Q: How can you multiply when one of the numbers is close to a ten?

A: You can multiply a number by the closest ten and adjust your answer.

For example, to calculate 7×87 , multiply 7×90 .

Remember to subtract the extra 7 groups of 3.

$$7 \times 90 = 630$$

$$7 \times 3 = 21$$

$$630 - 21 = 609$$

Q: How can you estimate a product of 2 two-digit numbers?

A: You can use multiples of 10. First, decide whether to estimate high or low. This depends on the situation.

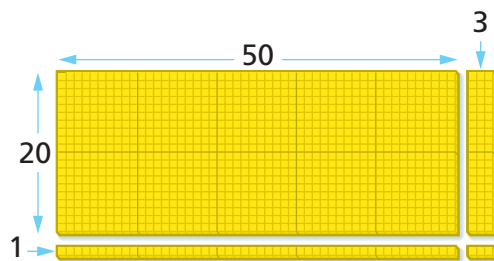
For example, suppose you need to estimate the cost of 19 items that are \$49 each. Estimate using $20 \times \$50$ to make sure you have enough money.

Q: How can you multiply 2 two-digit numbers?

A1: You can make a model using base ten blocks or sketch an array. Then you can calculate the products of the four parts, and add the products together.

For example, 21×53 looks like this:

$$\begin{array}{r} 53 \\ \times 21 \\ \hline 1000 \quad (20 \times 50) \\ \quad 60 \quad (20 \times 3) \\ \quad 50 \quad (1 \times 50) \\ \quad + 3 \quad (1 \times 3) \\ \hline 1113 \end{array}$$



Practice

Lesson 1

1. List three multiplication facts that you can use to help you calculate 6×7 . How can you use each fact?



Lesson 2

2. Mireille made bracelets for her friends. She put nine beads on each bracelet.
 - a) How many beads did she use for seven bracelets?
 - b) If Mireille had put only eight beads on each bracelet, how many beads would she have used?

Lesson 4

3. How can you use base ten blocks to show that $20 \times 50 = 1000$? Sketch your model.

Lesson 5

4. Use a sketch to show that $12 \times 50 = 6 \times 100$.

Lesson 6

5. How much greater is 8×103 than 8×100 ? How do you know?

Lesson 7

6. One bus holds 48 students. About how many students will 16 buses hold? Describe your estimation strategy.





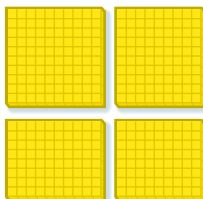
Lesson 8

7. About 56 babies are born every 12 h in Alberta. About how many babies are born in a week?

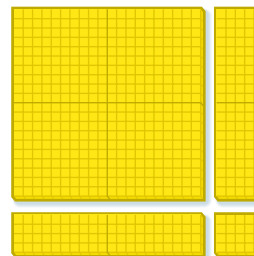
Lesson 9

8. Calculate.

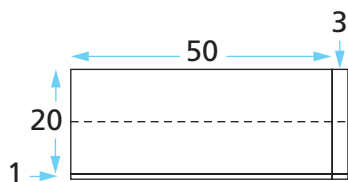
a) 18×19



b) 24×24



9. Annie types 37 words each minute.
- How many words can she type in 15 min?
 - How many words can she type in 25 min?
 - How many words can she type in 37 min?
10. How can you use base ten blocks to show that 35×47 is less than 37×45 ?



Lesson 10

11. What multiplication does the array at the left represent? Calculate the product.
12. Sketch an array to model each multiplication. Calculate each product.
- 35×24
 - 47×48
13. Calculate.
- 35×48
 - 62×53

Lesson 11

14. Describe two strategies for calculating 32×25 .

What Do You Think Now?

Look back at **What Do You Think?** on page 175. How have your answers and explanations changed?