



Explain how to use long multiplication to multiply a 3-digit by a 2-digit number

Task A: Regrouping in long multiplication

1) Fill in the gaps and complete the long multiplication.

a) 328×47

	3	2	8	
		4	7	×

b) 123×42

	1	2	3	
		4	2	×

c) 246×25

	2	4	6	
		2	5	×

d) 343×23

	¹ 3	4	3	
		2	3	×
1	0	2	9	
6	8	6	0	+
7	8	8	9	

e) 427×18

	² 4	⁵ 2	7	
		1	8	×
3	4	1	6	
4	2	7	0	+
7	6	8	6	

f) 489×16

	⁵ 4	⁵ 8	9	
		1	6	×
2	9	3	4	
4	8	9	0	+
7	8	2	4	
1	1			



Task B: Solving problems

1) Andeep picked 4, 4, 3, 2, 1

$$\begin{array}{r} \boxed{4} \boxed{4} \boxed{3} \\ \boxed{2} \boxed{1} \end{array} \times$$

	4	4	3	
		2	1	×
	4	4	3	
8	8	6	0	+
9	3	0	3	
1	1			

2) Andeep got 4, 2, 2, 2, 1

He rearranged to find what he thinks is the highest product.

$$\begin{array}{r} \boxed{4} \boxed{2} \boxed{1} \\ \boxed{3} \boxed{2} \end{array} \times$$

	4	2	1	
		3	2	×
	8	4	2	
1	2	6	3	0
1	3	4	7	2
1				

He made sure the 100s number and 10s number in the factors were larger digits.

3) Andeep got 4, 3, 2, 2, 1

He rearranged to find what he thinks is the lowest product.

$$\begin{array}{r} \boxed{1} \boxed{2} \boxed{4} \\ \boxed{2} \boxed{3} \end{array} \times$$

		1		
	1	2	4	
		2	3	×
	3	7	2	
2	4	8	0	+
2	8	5	2	
1	1			

He made sure the 100s number and 10s number in the factors were smaller digits.





Explain how to use long multiplication to multiply a 4-digit by a 2-digit number

Task A: Multiple regroupings

1) Complete the following word problems using long multiplication.

a) Sam and Andeep are calculating the number of volunteers for the Olympic games. Each team of volunteers consists of 1,352 members, and there are 19 teams. How many volunteers are there in total? *There are 25,688 volunteers in total.*

	3	4	1			
	1	3	5	2		
			1	9	×	
1	2	1	6	8		
1	3	5	2	0	+	
2	5	6	8	8		

b) The Olympic stadium sells tickets for various events. Each event has 3,465 tickets available, and there are 15 events. How many tickets are sold in total? *A total of 51,975 tickets are sold.*

			2			
	2	3	7			
	3	4	6	5		
			1	5	×	
1	7	3	2	5		
3	4	6	5	0	+	
5	1	9	7	5		
1						

c) 2,789 watch the first diving event. At the final there are 21 times as many spectators. How many people watch the final diving event? *A total of 58,569 meals are prepared.*

			2			
	1	1	1			
	2	7	8	9		
			2	1	×	
	2	7	8	9		
5	5	7	8	0	+	
5	8	5	6	9		
	1	1				

d) The Olympic gift shop needs to pack merchandise for shipment. Each box can hold 4,283 items, and they have 12 boxes to fill. How many items are packed in total? *A total of 51,396 items are packed.*

			1			
	4	2	8	3		
			1	2	×	
	8	5	6	6		
4	2	8	3	0	+	
5	1	3	9	6		
	1	1				

e) The organisers are distributing water bottles to spectators. Each section of the stadium is given 2,617 bottles, and there are 24 sections. How many water bottles are distributed in total? *A total of 62,808 water bottles are distributed.*

	1		1			
	2		2			
	2	6	1	7		
			2	4	×	
1	0	4	6	8		
5	2	3	4	0	+	
6	2	8	0	8		
	1	1				



Task B: Solving problems

1) Solve the following calculations by finding the missing digit.

a)

$$\begin{array}{r} \boxed{3} \text{ } 1 \text{ } 2 \text{ } 3 \\ \times \qquad \qquad \qquad 1 \text{ } \boxed{4} \\ \hline 1 \text{ } 2 \text{ } 4 \text{ } 9 \text{ } 2 \\ 3 \text{ } 1 \text{ } 2 \text{ } 3 \text{ } 0 \\ \hline 4 \text{ } 3 \text{ } 7 \text{ } 2 \text{ } 2 \\ \phantom{4 \text{ } 3 \text{ } 7 \text{ } 2 \text{ } 2} 1 \end{array}$$

b)

$$\begin{array}{r} \boxed{2} \text{ } 1 \text{ } \boxed{6} \text{ } 3 \\ \times \qquad \qquad \qquad \boxed{3} \text{ } 1 \\ \hline \phantom{6 \text{ } 4 \text{ } 8 \text{ } 9 \text{ } 0} 2 \text{ } 1 \text{ } 6 \text{ } 3 \\ 6 \text{ } 4 \text{ } 8 \text{ } 9 \text{ } 0 \\ \hline 6 \text{ } 7 \text{ } 0 \text{ } 5 \text{ } 3 \\ \phantom{6 \text{ } 7 \text{ } 0 \text{ } 5 \text{ } 3} 1 \text{ } 1 \end{array}$$

c)

$$\begin{array}{r} \text{ } 1 \text{ } 2 \text{ } 1 \\ \boxed{3} \text{ } 3 \text{ } \boxed{4} \text{ } 3 \\ \times \qquad \qquad \qquad \boxed{1} \text{ } 2 \\ \hline \phantom{3 \text{ } 3 \text{ } 4 \text{ } 3 \text{ } 0} 6 \text{ } 6 \text{ } 8 \text{ } 6 \\ 3 \text{ } \boxed{3} \text{ } 4 \text{ } 3 \text{ } 0 \\ \hline 4 \text{ } 0 \text{ } \boxed{1} \text{ } \boxed{1} \text{ } 6 \\ \phantom{4 \text{ } 0 \text{ } 1 \text{ } 1 \text{ } 6} 1 \text{ } 1 \text{ } 1 \end{array}$$

2) Did you notice the product was a multiple of 100 and try a multiple of 10 for one of the factors?

0 **1** **2** **3** **4** **5**

$$\boxed{3} \boxed{4} \boxed{2} \boxed{0} \times \boxed{1} \boxed{5} = 51,300$$

$$3,420 \times 15 = 51,300$$

