Multiplication (With Carry over)

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In some multiplication problems, the answer of one step is more than 9. When this happens, we carry over the extra digit to the next place. This is called Multiplication with Carry Over. We multiply just like addition with carry.

Steps to Multiply with Carry Over

Step 1: Multiply the ones place

Step 2: If the result is more than 9, write the ones digit and carry the tens

Step 3: Multiply the tens place, then add the carry

Step 4: Write the final answer

Examples with Solutions

i. 27 × 2

 $2 \times 7 = 14 \rightarrow$ write 4, carry 1

 $2 \times 2 = 4 + 1 = 5$

Answer: 54

ii. 36 × 3

 $3 \times 6 = 18 \rightarrow$ write 8, carry 1

 $3 \times 3 = 9 + 1 = 10$

Answer: 108

iii. 42 × 2

 $2 \times 2 = 4 \rightarrow$ no carry

 $2 \times 4 = 8$

Answer: 84 (This has no carry, included for clarity)

iv. 48 × 2

 $2 \times 8 = 16 \rightarrow$ write 6, carry 1

 $2 \times 4 = 8 + 1 = 9$

Answer: 96

v. 59 × 2

 $2 \times 9 = 18 \rightarrow$ write 8, carry 1

2 × 5 = 10 + 1 = 11

Answer: 118

Summary Points

- Carry over is used when the product is more than 9.
- Always multiply ones first, then tens.
- Add the carry to the next place value.
- Practice helps to do it faster and correctly.
- It is just like normal multiplication with an extra step.