

Multiplication

L.I. To multiply two-digit and three-digit numbers by a one-digit number using formal written layout

Background/Support

The grid method is often taught before introducing children to long multiplication. This is because the grid method makes place value very clear. It is a good method for multiplying a 2 digit number by a one digit number.

To do the grid method you partition the two digit number into tens and ones

For example:

$$23 \times 7 =$$

| x | 20 | 3 |
|---|-----|----|
| 7 | 140 | 21 |

You then add your totals together

$$20 \times 7 = 140$$

$$7 \times 3 = 21$$

$$140 + 21 = 161$$


Remember, you can use your knowledge of existing times tables to multiply larger numbers, e.g. 20×7 , use your knowledge of 2×7 .
Useful video: <https://www.bbc.co.uk/bitesize/topics/z36tyrd/articles/zwghk2p>

Multiply the Ingredients for the Wedding Banquet

At the wedding, Prospero introduces the masque. In the sixteenth and seventeenth centuries, masques were popular forms of entertainment in England. Masques featured masked actors performing allegorical, often highly ritualized stories drawn from mythology and folklore. They then sat down to have a banquet. They don't have much time to prepare and need your help to work out the quantities of ingredients that they will need.

Task 1: Use your multiplication knowledge to find the quantities of each ingredients

For the bread:

31 x 2 grams
of salt

62 grams

| | | |
|----------|-----------|----------|
| X | 30 | 1 |
| 2 | 60 | 2 |

$$30 \times 2 = 60$$


$$1 \times 2 = 2$$

$$60 + 2 = 62$$




45 x 9 grams
of flour

| | | |
|----------|--|--|
| X | | |
| | | |




38 x 6 grams
of baking
soda

| | | |
|----------|--|--|
| X | | |
| | | |



42 x 8 ml of
milk

| | | |
|----------|--|--|
| X | | |
| | | |



46 x 6 ml of
warm water

| | | |
|----------|--|--|
| X | | |
| | | |

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Task 1: Use your multiplication knowledge to find the quantities of each ingredients

For the Maccu Soup:



65 x 6 grams
of beans

X

| | | |
|--|--|--|
| | | |
| | | |



59 x 4 grams of
onions

X

| | | |
|--|--|--|
| | | |
| | | |



61 x 8 grams of
garlic

X

| | | |
|--|--|--|
| | | |
| | | |



83 x 8 grams of
mint

X

| | | |
|--|--|--|
| | | |
| | | |



90 x 7 grams of fennel

X

| | | |
|--|--|--|
| | | |
| | | |



Multiplication

Task 2: Using your answers. Solve these problems. Show your workings out. You may need to use other operations, like addition and subtraction to solve them.

1. How many more grams of flour than salt did you use in the bread?
2. Did you use more milk or water in the bread recipe? Prove your answer by showing your workings out
3. How many more grams of mint would you have to use to use 1000g (1kg)? Show your workings
4. Put the ingredients for the Maccu Soup in order, from lightest to heaviest.
5. If you doubled the quantities for every ingredient used to make bread. How much of each would you have? Write in a list below

Multiplication Grid

You may find this helpful to help solve the multiplication problems.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |