Gr 4 - 7 Master Multiplication | Part 3

Only Gr 4 – 7 Learners Must Continue. Not Suitable for Gr 3

Question 1 | ×10

1. Fill in the first ten multiples of 10.

	1	2	3	4	5	6	7	8	9	10
× 10	10	20				60				

2. Study: a) 1 hundred = 10 tens b) 10 × 10 = 100

3. Fill in the multiples of 10 between 100 and 200. *Simply count in tens.*

	10	11	12	13	14	15	16	17	18	19	20
× 10	100	110	120								200

4. Study: Multiplying a number by 10 makes it 10 times bigger.

a) 9 × 10 = 90 (9 tens)

b) 12 × 10 = 120 (12 tens)

12 tens
= 10 tens + 2 tens
= 1 hundred + 2 tens

5. Complete:

a) 10 × 10 = 100 b) 12 × 10 = ... c) 14 × 10 = ... d) 19 × 10 = ...

11 × 10 = ... 13 × 10 = ... 18 × 10 = ... 20 × 10 = ...

6. Complete: a) 2 hundred = ... tens b) 10 × 20 = ... c) 20 × 10 = ...

7. Study: Multiplying a number by 10 makes it 10 times bigger.

a) 40 × 10 = 400 (40 tens)

b) 43 × 10 = 430 (43 tens)

43 tens
= 40 tens + 3 tens
= 4 hundreds + 3 tens

8. Complete:

a) 30 × 10 = 300 b) 50 × 10 = ... c) 60 × 10 = ... d) 90 × 10 = ...

32 × 10 = 320 54 × 10 = ... 68 × 10 = ... 99 × 10 = ...

Question 2 | 20 × 10 and 20 × 30 etc.

1. Write in short form: a) 2 × 100 = 200 b) 5 × 100 = ... c) 8 × 100 = ...

2. Complete: Remember 10 × 10 = 100. [See Page 7]

a) 20 × 10
= 2 × 10 × 10
= 2 × 100
= 200

b) 30 × 10
= .....
= .....
= .....

c) 40 × 10 = ...

d) 70 × 10 = ...

e) 90 × 10 = ...

3. Complete:

a) 20 × 20
= 2 × 10 × 2 × 10
= 4 × 100
= 400

b) 30 × 20
= .....
= .....
= .....

c) 40 × 20 = ...

d) 20 × 30 = ...

e) 30 × 30 = ...

4. Complete:

a) 12 × 100 = 1 200 b) 15 × 100 = ... c) 24 × 100 = ... d) 35 × 100 = ...

5. Complete:

a) 30 × 40
= 3 × 10 × 4 × 10
= 12 × 100
= 1 200

b) 40 × 60
= .....
= .....
= .....

c) 50 × 30 = ...

d) 80 × 40 = ...

e) 70 × 70 = ...

6. Complete:

a) 20 × 100 = 2 000 b) 40 × 100 = ... c) 70 × 100 = ... d) 90 × 100 = ...

7. Complete:

a) 40 × 50
= 4 × 10 × 5 × 10
= 20 × 100
= 2 000

b) 50 × 60
= .....
= .....
= .....

c) 50 × 20 = ...

d) 60 × 50 = ...

e) 50 × 80 = ...

Question 3 | 12 × 30 and 15 × 20 etc.

1. Complete:

a) 12 × 30
= 12 × 3 × 10
= 36 × 10
= 360

b) 24 × 20
= .....
= .....
= .....

c) 11 × 40 = ...

d) 13 × 20 = ...

e) 34 × 20 = ...

2. Complete:

a) 15 × 20
= 15 × 2 × 10
= 30 × 10
= 300

b) 25 × 20
= .....
= .....
= .....

c) 45 × 20
= .....
= .....
= .....

3. Complete:

a) 15 × 30
= 15 × 3 × 10
= 45 × 10
= 450

b) 18 × 20
= .....
= .....
= .....

c) 19 × 20 = ...

d) 14 × 30 = ...

e) 25 × 30 = ...

4. Complete:

a) 53 × 20
= 53 × 2 × 10
= 106 × 10
= 1 060

b) 64 × 20
= .....
= .....
= .....

c) 54 × 20
= .....
= .....
= .....

d) 71 × 20
= .....
= .....
= .....

5. Complete:

a) 25 × 50
= 25 × 5 × 10
= 125 × 10
= 1 250

b) 25 × 40
= .....
= .....
= .....

c) 65 × 20 = ...

d) 35 × 30 = ...

e) 32 × 50 = ...

Question 4 | 2-digit numbers × 2-digit numbers ["Breaking-up"]

1. Complete using the "breaking-up" method.

a) 23 = 20 + 3
× 32 = 30 + 2

6	[2 × 3]
40	[2 × 20]
1 90	[30 × 3]
+ 600	[30 × 20]
736	

b) 24
× 22

c) 35
× 42

d) 32
× 53

e) 43 = 40 + 3
× 56 = 50 + 6

1 18	[6 × 3]
240	[6 × 40]
150	[50 × 3]
+ 2000	[50 × 40]
2408	

f) 34
× 72

g) 34
× 83

h) 75
× 86

i) 67 = 60 + 7
× 48 = 40 + 8

2 56	[8 × 7]
480	[8 × 60]
1 280	[40 × 7]
+ 2400	[40 × 60]
3216	

j) 64
× 48

k) 69
× 86

l) 89
× 97

Question 5 | 2-digit numbers × 2-digit numbers [Short Method]

1. Study: 23 × 32

Part 1: 23 × 2

$$\begin{array}{r} 23 \\ \times\ 32 \\ \hline 46 \\ \hline \\ \hline \end{array}$$

Step 1: 2 × 3U = 6U

Step 2: 2 × 2T = 4T

Part 2: 23 × 30 = 23 × 3 × 10

Step 1: ×10

$$\begin{array}{r} 23 \\ \times\ 32 \\ \hline 46 \\ +\ 690 \\ \hline 736 \\ \hline \end{array}$$

Step 2: We have already multiplied by 10. 3 × 23 = 69

Step 1: ×10

2. Complete using the "short" method.

a) $\begin{array}{r} 23 \\ \times\ 22 \\ \hline {}^{1}46 \\ +\ 460 \\ \hline 506 \\ \hline \end{array}$ [2 × 23] [20 × 23]

b) $\begin{array}{r} 32 \\ \times\ 22 \\ \hline \\ \\ \hline \\ \hline \end{array}$

c) $\begin{array}{r} 24 \\ \times\ 22 \\ \hline \\ \\ \hline \\ \hline \end{array}$

d) $\begin{array}{r} 32 \\ \times\ 33 \\ \hline \\ \\ \hline \\ \hline \end{array}$

3. Study: 43 × 56

Part 1: 43 × 6

$$\begin{array}{r} {}^{1}43 \\ \times\ 56 \\ \hline 258 \\ \hline \\ \hline \end{array}$$

Step 1: 6 × 3U = 18U = 1T + 8U

Step 2: 6 × 4T = 24T and 24T + 1T = 25T

Part 2: 43 × 50 = 43 × 5 ×10

Step 1: ×10

$$\begin{array}{r} {}^{1}43 \\ \times\ 56 \\ \hline {}^{1}258 \\ +\ 2150 \\ \hline 2408 \\ \hline \end{array}$$

Step 2: We have already multiplied by 10. 5 × 43 = 215

Step 1: ×10

4. Complete using the "short" method.

a) $\begin{array}{r} 52 \\ \times\ 36 \\ \hline 312 \\ +\ 1560 \\ \hline 1872 \\ \hline \end{array}$ [6 × 52] [30 × 52]

b) $\begin{array}{r} 48 \\ \times\ 35 \\ \hline \\ \\ \hline \\ \hline \end{array}$

c) $\begin{array}{r} 56 \\ \times\ 37 \\ \hline \\ \\ \hline \\ \hline \end{array}$

d) $\begin{array}{r} 43 \\ \times\ 68 \\ \hline \\ \\ \hline \\ \hline \end{array}$

e) $\begin{array}{r} 54 \\ \times\ 87 \\ \hline \\ \\ \hline \\ \hline \end{array}$

Question 6 | Mixed Questions and Word Sums

1. Complete:

   Do your working out on a separate piece of paper, where necessary.

   a) 13 × 10 = ... b) 25 × 20 = ... c) 12 × 12 = ...

   d) 15 × 30 = ... e) 13 × 15 = ... f) 50 × 40 = ...

   g) 68 × 30 = ... h) 34 × 23 = ... i) 60 × 89 = ...

   j) 56 × 47 = ... k) 87 × 76 = ... l) 96 × 87 = ...

2. There are 18 books in one box.

   How many books will there be in 20 of these boxes? .....

3. Jone asks the ground staff to pack 23 rows of 15 chairs each in the school hall.

   How many chairs will be packed out in total? .....

4. A bag of chicken feed costs R48. A farmer buys 75 bags.

   How much does he spend on chicken feed? .....

5. Adam uses 25 litres of petrol every month.

   How much petrol does he use in 1 year? .....

6. The distance from Junior's home to school is 18km.

   He cycles to school and back home every (school) day for 4 weeks.

   .....

   .....

Question 7 | ×100 and ×120 etc. [Mental Maths]

1. Study: We are counting in 100s:

100 , 200 , 300 , 400 , 500, 600…

These numbers are **multiples** of 100.

The third multiple of 100 is 300:

- 100 + 100 + 100 = 300
- 3 hundreds = 300
- **3 × 100 = 300**

2. Fill in the multiples of 100 in the table. *Simply count in 100s.*

	1	2	3	4	5	6	7	8	9	10	11	12
×100	100	200								1 000	1 100	

3. Complete the table.

	Repeated addition	In words	Multiplication form	Answer
a)	100 + 100 + 100	3 hundreds	3 × 100	300
b)	100 + 100			
c)	100 + 100 + 100 + 100			

4. To multiply by 100 means to make a number 100 times bigger. [100 = 10 × 10]

It does **not** mean that we "add two zeros". **4 + 0 + 0 = 4** but **$4 \times 100 = 400$** (U × HTU)

5. Complete:

a) 1 × 100 = 100 b) 5 × 100 = ... c) 100 × 4 = ... d) 2 × 10 × 10 = ...

3 × 100 = 300 7 × 100 = ... 100 × 8 = ... 10 × 10 × 9 = ...

6. Complete:

a) 9 × 100 = 900 b) 12 × 100 = ... c) 14 × 10 × 10 = ...

10 × 100 = 1 000 15 × 100 = ... 10 × 10 × 19 = ...

7. Complete:

a) 3 × 120
= 3 × 12 × 10
= 36 × 10
= 360

b) 2 × 140
= .....
= .....
= .....

c) 3 × 150
= .....
= .....
= .....

d) 2 × 160 = ...

e) 150 × 2 = ...

f) 4 × 120 = ...

Question 8 | ×200 to ×290

1. Fill in the first ten multiples of 200. *Simply count in 200s.*

	1	2	3	4	5	6	7	8	9	10
× 200	200	400								2 000

2. Complete the table.

	Repeated addition	Multiplication form	Answer
a)	200 + 200	2 × 200	400
b)	200 + 200 + 200		
c)	200 + 200 + 200 + 200		

3. Complete:

a) 3 × 200 = 600
200 × 3 = 600

b) 2 × 200 = ...
200 × 2 = ...

c) 200 × 4 = ...
20 × 40 = ...

d) 200 × 1 = ...
200 × 10 = ...

4. Complete:

a) 6 × 200
= 6 × 2 × 100
= 12 × 100
= 1 200

b) 8 × 200
= .....
= .....
= .....

c) 5 × 200 = ...

d) 200 × 7 = ...

e) 9 × 200 = ...

5. Complete:

a) 3 × 210
= 3 × 21 × 10
= 63 × 10
= 630

b) 2 × 240
= .....
= .....
= .....

c) 3 × 230
= .....
= .....
= .....

d) 2 × 230 = ...

e) 210 × 4 = ...

f) 3 × 220 = ...

6. Complete:

a) 2 × 260
= 2 × 26 × 10
= 52 × 10
= 520

b) 2 × 250
= .....
= .....
= .....

c) 4 × 230
= .....
= .....
= .....

d) 3 × 240 = ...

e) 280 × 2 = ...

f) 4 × 240 = ...

Question 9 | ×300 to ×900

1. Fill in the first ten multiples of 300. *Simply count in 300s.*

	1	2	3	4	5	6	7	8	9	10
× 300	300	600								3 000

2. Complete the table.

	Repeated addition	Multiplication form	Answer
a)	300 + 300	2 × 300	600
b)	300 + 300 + 300		
c)	300 + 300 + 300 + 300		

3. Complete:

a) 4 × 300
= 4 × 3 × 100
= 12 × 100
= 1 200

b) 7 × 300
= .....
= .....
= .....

c) 2 × 300 = ...

d) 300 × 5 = ...

e) 9 × 300 = ...

4. Complete:

a) 6 × 400
= 6 × 4 × 100
= 24 × 100
= 2 400

b) 8 × 400
= .....
= .....
= .....

c) 2 × 400 = ...

d) 300 × 4 = ...

e) 9 × 400 = ...

5. Complete:

a) 4 × 500
= 4 × 5 × 100
= 20 × 100
= 2 000

b) 5 × 600
= .....
= .....
= .....

c) 2 × 500 = ...

d) 400 × 5 = ...

e) 8 × 500 = ...

6. Complete:

a) 3 × 600 = 1 800 b) 8 × 600 = ... c) 200 × 4 = ... d) 800 × 7 = ...

6 × 700 = 4 200 9 × 700 = ... 40 × 20 = ... 80 × 70 = ...