## Maths Assessment Year 4 Term 2: Multiplication and Division

1. Recall multiplication and division up to $12 \times 12$.
2. Use place value, known and derived facts to multiply and divide mentally, including: dividing by 1 ; multiplying together three numbers.
3. Recognise and use factor pairs and commutativity in mental calculations.
4. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
5. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

## Name:

Date:

## Maths Assessment Year 4 Term 2: Multiplication and Division

1. Recall multiplication and division up to $12 \times 12$.

Answer the questions your teacher reads out loud. Just write the answer.

| 1 |  | 6 |  | 11 |  | 16 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 2 |  | 7 |  | 12 |  | 17 |  |
| 3 |  | 8 |  | 13 |  | 18 |  |
| 4 |  | 9 |  | 14 |  | 19 |  |
| 5 |  | 10 |  | 15 |  | 20 |  |

2. Use place value, known and derived facts to multiply and divide mentally, including: dividing by 1 ; multiplying together three numbers.
a) Answer the questions your teacher reads out loud. Just write the answer.

| 1 |  | 6 |  |
| :---: | :---: | :---: | :---: |
| 2 |  | 7 |  |
| 3 |  | 8 |  |
| 4 |  | 9 |  |
| 5 |  | 10 |  |

b) Multiply these numbers together:

| $3 \times 6 \times 0$ |  |
| :--- | :--- |
| $5 \times 2 \times 3$ |  |
| $8 \times 3 \times 9$ |  |
| $2540 \times 1$ |  |
| $10 \times 7 \times 6$ |  |
| $4 \times 4 \times 4$ |  |

3. Recognise and use factor pairs and commutativity in mental calculations.
a) Write all the factors of 48
$\square$
b) Two factors of 24 have a difference of 5 . What are they?
d) Using the same numbers, write the following calculation in 5 other ways: $6 \times 3 \times 8$

4. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.

Use written methods to complete these calculations. Show your working out:

| $67 \times 4$ |  | $82 \times 7$ |  |
| :--- | :--- | :--- | :--- |
| $163 \times 6$ |  |  |  |
|  |  | $409 \times 3$ |  |
|  |  |  |  |
|  |  |  |  |

5. Solve problems involving multiplying and adding, including the distributive law to multiply two-digit numbers by a one-digit, integer scaling problems and harder correspondence problems, such as $n$ objects are connected to $m$ objects.

Solve the following problems:
a) A school buys some packs of balls. In each pack, there are 2 footballs and 3 rugby balls. When all the packs were opened there were 16 footballs. How many rugby balls were there? Show your working out.

b) A box of pencils contains 6 packs of 12 pencils. The school buys 8 boxes. How many pencils will the school buy? Show your working out.

c) Each week, Marcella buys a magazine for 60p and 2 colouring pens for 35 p each. After 8 weeks, how much has she spent on the magazines and pens altogether? Show your working out.


1. Questions for teacher to read aloud. Read each question twice and leave 5 seconds for the pupils to answer. Children should just write down the answer.

| $\mathbf{1}$ | $7 \times 5$ | $\mathbf{6}$ | $3 \times 8$ | $\mathbf{1 1}$ | $108 \div 12$ | $\mathbf{1 6}$ | $11 \times 10$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | $48 \div 6$ | $\mathbf{7}$ | $11 \times 12$ | $\mathbf{1 2}$ | $5 \times 5$ | $\mathbf{1 7}$ | $49 \div 7$ |
| $\mathbf{3}$ | $7 \times 9$ | $\mathbf{8}$ | $55 \div 5$ | $\mathbf{1 3}$ | $2 \times 6$ | $\mathbf{1 8}$ | $8 \times 5$ |
| $\mathbf{4}$ | $11 \times 3$ | $\mathbf{9}$ | $4 \times 7$ | $\mathbf{1 4}$ | $32 \div 8$ | 19 | $9 \times 7$ |
| $\mathbf{5}$ | $36 \div 6$ | $\mathbf{1 0}$ | $6 \times 12$ | $\mathbf{1 5}$ | $4 \times 0$ | $\mathbf{2 0}$ | $8 \div 8$ |

2. Tell the children to use the multiplication facts they already know and place value to answer the following questions. Read each question twice and leave 10 seconds for them to write the answer.

| $\mathbf{1}$ | $40 \times 6$ | $\mathbf{6}$ | $320 \div 4$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | $3 \times 70$ | $\mathbf{7}$ | $80 \times 6$ |
| $\mathbf{3}$ | $900 \div 3$ | $\mathbf{8}$ | $400 \times 4$ |
| $\mathbf{4}$ | $20 \times 8$ | $\mathbf{9}$ | $200 \div 5$ |
| $\mathbf{5}$ | $60 \times 9$ | $\mathbf{1 0}$ | $40 \times 30$ |

Answer Sheet: Maths Assessment Year 4 Term 2: Multiplication and

| question | answer |  |  |  | marks | notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Recall multiplication and division up to $12 \times 12$. |  |  |  |  |  |  |
|  | $\begin{aligned} & 1.35 \\ & \text { 2. } 8 \\ & 3.63 \\ & \text { 4. } 33 \\ & 5.6 \end{aligned}$ | $\begin{aligned} & \text { 6. } 24 \\ & 7.132 \\ & 8.11 \\ & 9.28 \\ & 10.72 \end{aligned}$ | $\begin{aligned} & 11.9 \\ & 12.25 \\ & 13.12 \\ & 14.4 \\ & 15.0 \end{aligned}$ | $\begin{aligned} & 16.110 \\ & 17.7 \\ & 18.40 \\ & 19.63 \\ & 20.1 \end{aligned}$ | $\begin{aligned} & \text { up } \\ & \text { to } 10 \\ & \text { marks } \end{aligned}$ | 1 or 2 correct $=1$ mark <br> 3 or 4 correct $=2$ marks <br> 5 or 6 correct $=3$ marks <br> 7 or 8 correct $=4$ marks <br> 9 or 10 correct $=5$ marks <br> 11 or 12 correct = 6 marks <br> 13 or 14 correct $=7$ marks <br> 15 or 16 correct $=8$ marks <br> 17 or 18 correct $=9$ marks <br> 19 or 20 correct $=10$ marks |

2. Use place value, known and derived facts to multiply and divide mentally, including: dividing by 1; multiplying together three numbers.

| a | 1. 240 <br> 2. 210 <br> 3. 300 <br> 4. 160 <br> 5. 540 | 6. 80 <br> 7. 480 <br> 8. 1600 <br> 9. 40 <br> 10. 1200 | up to 5 marks | 1 or 2 correct $=1$ mark <br> 3 or 4 correct $=2$ marks <br> 5 or 6 correct $=3$ marks <br> 7 or 8 correct $=4$ marks <br> 9 or 10 correct $=5$ marks |
| :---: | :---: | :---: | :---: | :---: |
| b | $\begin{aligned} & 3 \times 6=0 \\ & 5 \times 2 \times=\mathbf{3 0} \\ & 8 \times 3 \times 9=216 \\ & 2540 \times 1=\mathbf{2 5 4 0} \\ & 10 \times 7 \times 6=420 \\ & 4 \times 4 \times 4=64 \end{aligned}$ |  | up to 6 marks | Award one mark for each correct answer. |

3. Recognise and use factor pairs and commutativity in mental calculations.

| a | $1,2,3,4,6,8,12,16,24,48$ | 3 | Accept them in any order. |
| :---: | :--- | :---: | :--- |
| b | 8 and 3,1 and 6 | 1 | Accept them in any order. |

4. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.

| $67 \times 4=268$ |  |  |  |
| :--- | :--- | :--- | :--- |
| $82 \times 7=574$ |  |  |  |
| $163 \times 6=978$ |  |  |  |
| $409 \times 3=1227$ |  | up to 4 <br> marks | Award 1 mark for each correct answer, but <br> must show working out. |


| question | answer | marks | notes |
| :---: | :---: | :---: | :---: |
| 5. Solve problems involving multiplying and adding, including the distributive law to multiply two-digit numbers by a one-digit, integer scaling problems and harder correspondence problems, such as $n$ objects are connected to m objects. |  |  |  |
| a | 24 rugby balls | Up to 2 marks | Score 2 marks for correct answer. 1 mark for an answer showing a method but with 1 mistake. |
| b | 576 | Up to 2 marks | Score 2 marks for correct answer. 1 mark for an answer showing only 1 mistake. |
| c | £10.40 | Up to 2 marks | Score 2 marks for correct answer. 1 mark for correct method and only 1 mistake in calculation. |
|  |  | Total 40 |  |

