Name:

## Maths Assessment Year 4: 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 2 digit and 3 digit numbers by a 1 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.

## Maths Assessment Year 4: 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:

| $24 \times 0$ |  |
| :--- | :--- |
| $4 \times 6 \times 3$ |  |
| $7 \times 2 \times 8$ |  |
| $125 \times 1$ |  |
| $5 \times 8 \times 3$ |  |
| $6 \times 4 \times 8$ |  |

c) For each multiplication, write 1 related division fact:
example:

| $8 \times 7$ | $56 \div 7=8$ |
| :--- | :--- |


| $6 \times 4$ |  |
| :--- | :--- |
| $12 \times 7$ |  |
| $11 \times 9$ |  |
| $4 \times 8$ |  |
| $9 \times 5$ |  |
| $6 \times 8$ |  |

3. Recognise and use factor pairs and commutativity in mental calculations.
a) Two factors of 12 add up to 8 . What are they? $\square$
b) Tick the calculations that have the same answer to $3 \times 4 \times 5$.
$4 \times 5 \times 3$
$20 \times 3$
$6 \times 4 \times 2$
$6 \times 12$
$3 \times 20 \times 1$

4. Multiply 2 digit and 3 digit numbers by a 1 digit number using formal written layout.

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

| $85 \times 3$ | $62 \times 4$ |
| :--- | :--- |
|  |  |
| $132 \times 5$ | $264 \times 3$ |

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.

Solve the following problems:
a) Ella needs 20 cupcakes for her birthday party. The following shops sell them at the following prices:


Cool Cupcakes


4 cupcakes for 30p

Which shop would it be cheapest to buy the cakes at? Show your working out.
b) She also wants to buy 6 margarita pizzas and 4 pepperoni.


Margarita 3 for $£ 4$
Pepperoni $£ 2$ each

Pizza Palace


Margarita 75p each
Pepperoni 2 for $£ 5$

Which shop would it be cheapest to buy the pizzas at? Show your working out.
c) There are 7 guests coming to the party. She estimates that each guest, plus herself, will drink 500 ml of lemonade each. How many litre bottles of lemonade will she need to buy. If each litre costs $£ 1.50$, how much will it cost altogether? Show your working out.


| total cost |  |
| :--- | :--- |

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.

| $\mathbf{1}$ | $6 \times 9$ | $\mathbf{6}$ | $9 \times 8$ | $\mathbf{1 1}$ | $7 \times 12$ | $\mathbf{1 6}$ | $4 \times 8$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | $32 \div 8$ | $\mathbf{7}$ | $12 \times 12$ | $\mathbf{1 2}$ | $81 \div 9$ | $\mathbf{1 7}$ | $7 \times 7$ |
| $\mathbf{3}$ | $7 \times 5$ | $\mathbf{8}$ | $40 \div 8$ | $\mathbf{1 3}$ | $8 \times 6$ | $\mathbf{1 8}$ | $60 \div 12$ |
| $\mathbf{4}$ | $11 \times 9$ | $\mathbf{9}$ | $3 \times 7$ | $\mathbf{1 4}$ | $80 \div 8$ | 19 | $8 \times 7$ |
| $\mathbf{5}$ | $36 \div 6$ | $\mathbf{1 0}$ | $45 \div 9$ | $\mathbf{1 5}$ | $9 \times 0$ | $\mathbf{2 0}$ | $42 \div 7$ |

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.

| $\mathbf{1}$ | $80 \times 5$ | $\mathbf{6}$ | $7 \times 20$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | $5 \times 40$ | $\mathbf{7}$ | $540 \div 9$ |
| $\mathbf{3}$ | $210 \div 3$ | $\mathbf{8}$ | $500 \times 7$ |
| $\mathbf{4}$ | $60 \times 6$ | $\mathbf{9}$ | $80 \times 30$ |
| $\mathbf{5}$ | $240 \div 8$ | $\mathbf{1 0}$ | $30 \times 60$ |

Answer Sheet: Maths Assessment Year 4: Multiplication and Division


| question | answer | marks | notes |
| :---: | :---: | :---: | :---: |
| 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. |  |  |  |
| a | Cool Cupcakes | Up to 2 marks | Score 2 marks for Cool Cupcakes, or an indication that this shop was the cheapest (arrow/circle) <br> Award 1 mark for a correct method but a calculation error. |
| b | Pizza palace | Up to 2 marks | Score 2 marks for Pizza Palace or an indication that this shop was the cheapest (arrow/circle) <br> Award 1 mark for a correct method but a calculation error. |
| c | 4 bottles £6 | Up to 2 marks | Score 1 mark for each part of the question. <br> If the number of bottles is incorrect, score 1 mark for calculating the correct cost of the bottles based on the previous answer. |
|  |  | $\begin{aligned} & \text { Total } \\ & 40 \end{aligned}$ |  |

