**BRICKWORK**
mathematics

Prior learning assessment
Multiplication  Year 6 Answers

Multiplication &
Division

1)   Answer these multiplication sums

a) 120 x 4 = **480**

b)  60 x 60 = **3600**

c)  16 x 8 =  **128**

d)  360 x 5 = **1800**

e) 16 x 50 = **800**

Children should be exploring metal methods for these questions.  If child has got it correct but relied on written methods, you will still want to provide opportunities to practice mental multiplication methods, especially the use of doubling and multiplying by 10 and 100 to find 5 and 50 lots.

2) Miss Green ordered some new stickers for the school. Each pack contains 245 stickers. She ordered 7 packs. How many stickers has she ordered altogether?

Ideally the pupil will use the formal method of short multiplication. If the pupil has got this correct using other methods, reward a mark but ensure that opportunities to practice and apply using the short method are selected from the activity section.

$$\begin{array}{r} 2\ 4\ 5 \\ 7 \\ \hline 1\ 7\ 1\ 5 \\ {\scriptstyle 3\ \ 3} \end{array}$$

**1715**

3) 1237 x 6 =

| | | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 7 | | By year 6 children should be using the formal method of short multiplication |
| | | | | 6 | | |
| | **7** | **4** | **2** | **2** | | **7422** |
| | 1 | 2 | 4 | | | |

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4) Mohammed visits the local bakery. He buys 8 cakes for his friends. How much does he spend altogether?



**Cakes**
£2.45 each

```
  2 . 4 5
      8
1 9 . 6 0
  3   4
```

or alternatively    2.45 x 100= 245

```
    2 4 5
        8
  1 9 6 0
    3 4
```

1960 ÷100 = 19.60

**£19.60**

5) Sam's mum plans a day trip to Birmingham with her 3 teenage children. They decide to get the train. Each ticket costs £15.80. How much does it cost altogether?

**Look out for children who did 3 x 15.80, Mum went 'with her 3 teenage children'. Children may need more support with word problems. Note this on the teacher assessment grid.**

```
  1 5. 8 0
        4
  6 3. 2 0
  2   3
```

Pupils should be using formal method to attempt this sum. They may do as above and use knowledge of x by 100 to make this a whole number first.

£63.20

6)  16 x 21 =

| | | | 1 | 6 | |
|---|---|---|---|---|---|
| | | | 2 | 1 | |
| | | | 1 | 6 | |
| | | 3 | 2 | 0 | |
| | | ¹3 | 3 | 6 | |
| | | | | | 336 |

You are looking for the formal method of long multiplication. The biggest error is often with place value when the second number is multiplied. Often children will read as 2 x 6 and not 20 x 6

336

BRICKWORK
mathematics

Multiplication & Division

## 7) 789 x 15 =

|   |   | 7 | 8 | 9 |   |
|---|---|---|---|---|---|
|   |   |   | 1 | 5 |   |
|   | 3 | 9 | 4 | 5 |   |
| + | 7 | 8 $^4$ | 9 $^4$ | 0 |   |
| **1** | **1** | **8** | **3** | **5** |   |
|   | $_1$ | $_1$ |   |   |   |

You are looking for the formal method of long multiplication. Children may need support with layout and carrying when adding and multiplying.

**11835**

## 8) 1356 x 19=

| 1 | 3 | 5 | 6 |   |
|---|---|---|---|---|
|   |   | 1 | 9 |   |
| 1 | 2 | 2 | 0 | 4 |
| 1 | 3 $^3$ | 5 $^5$ | 6 $^5$ | 0 |
| **2** | **5** | **7** | **6** | **4** |

Look for any errors previously discussed such misunderstanding of place value or layout problems.

**25764**

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9) Sarah is having a birthday party. She invites 12 people.
She wants to buy a goody bag for each child. They cost
£1.93 each. Approximately how much of her pocket money will she have to use?

Approximate 1.93 to 2.00 as this is a quick and efficient number to round to mentally. 12 x 2 = 24 . Some pupils may attempt to work it out and then round or round to 1.90 , which will still require written strategies. This shows that children have little understanding of what approximating is and when it is needed.

**£24**

10) Claire has 24 sweets. Circle all the possibilities of how she could share these in to equal groups:

(8)  9   17  (24)(3)(6)(12)  7   5

11) List all the numbers that are factors of both 18 and 30.

 1,  2,  3,  6

12) Place a number in each part of the Venn diagram using only numbers between 201 and 399

| Multiples of 4 and 10 | Multiples of 6 and 10 |

280
or
320

360
or
240

300