Homework/Extension
Step 2: Multiply 4-Digits by 2-Digits

National Curriculum Objectives:

Mathematics Year 6: (6C7a) Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
Mathematics Year 6: (6C8) Solve problems involving addition, subtraction, multiplication and division

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Complete the calculations to find the largest answer when multiplying 4-digits by 2-digits displayed in a column multiplication format with no exchanging.
Expected Complete the calculations to find the smallest answer when multiplying 4-digits by 2-digits displayed in a linear format with up to 3 exchanges.
Greater Depth Complete the calculations to find the largest answer when multiplying 4-digits by 2-digits displayed in linear and column multiplication format with multiple exchanges. Numbers are represented in numerals and words.

Questions 2, 5 and 8 (Varied Fluency)
Developing Solve the word problems given in a real-life context. Multiplying 4-digits by 2-digits with no exchanging.
Expected Solve the word problems given in a real-life context. Multiplying 4-digits by 2-digits with up to 3 exchanges.
Greater Depth Solve the word problems given in a real-life context. Multiplying 4-digits by 2-digits with multiple exchanges where numbers are represented in numerals and words.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Find two possible answers to a problem using the given parameters when multiplying 4-digits by 2-digits with no exchanging.
Expected Find three possible answers to a problem using the given parameters when multiplying 4-digits by 2-digits with up to 3 exchanges.
Greater Depth Find three possible answers to a problem using the given parameters when multiplying 4-digits by 2-digits with multiple exchanges where numbers are represented in numerals and words.

More Year 6 Four Operations resources.

Did you like this resource? Don't forget to review it on our website.

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Multiply 4-Digits by 2-Digits

1. Mrs. Andrews gives three of her children a calculation each.



Amita

$$\begin{array}{r} 1\,3\,2\,1 \\ \times \quad 2\,1 \\ \hline \end{array}$$



Barbara

$$\begin{array}{r} 2\,1\,3\,1 \\ \times \quad 1\,2 \\ \hline \end{array}$$



Clive

$$\begin{array}{r} 1\,1\,1\,3 \\ \times \quad 2\,3 \\ \hline \end{array}$$

Which pupil has the largest answer?

D

VF
HW/Ext

2. A bakery sells boxes of cupcakes. There are 12 cupcakes in a box.

Last year, the bakery sold 1,233 boxes. How many cupcakes did they sell?





The bakery also sells muffins with cherries on the top. In one month, they used 2,411 cherries.

How many cherries will they use in the whole year?

D

VF
HW/Ext

3. James is using the following digit cards to complete a multiplication calculation.

1	2	2	4

He uses three of the digits in this calculation:

$$\begin{array}{r} 1\,,\square\,\square\,1 \\ \times \quad\quad 2\,\square \\ \hline \end{array}$$

James wants to find calculations which have answers between 20,000 and 30,000.

Find two calculations he could use.

D

RPS
HW/Ext

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Multiply 4-Digits by 2-Digits

4. Mrs. Peters gives three of her children a calculation each.



Andrew

21 x 4,143



Belinda

2,123 x 24



Charles

12 x 7,133

Which pupil has the smallest answer?

E

VF
HW/Ext

5. A bakery sells boxes of cupcakes. There are 16 cupcakes in a box.

Last year, the bakery sold 1,521 boxes. How many cupcakes did they sell?





The bakery also sells muffins with sprinkles on the top. In one month, they used 2,138 sprinkles.

How many sprinkles will they use in the whole year?

E

VF
HW/Ext

6. Melanie is using the following digit cards to complete a multiplication calculation.

1	2	3	3	4

She uses three of the digits in this calculation:

$$\square\square,2\square1 \times \quad 1\square$$

Melanie wants to find calculations which have answers between 25,000 and 35,000.

Find three calculations she could use.

E

RPS
HW/Ext

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Multiply 4-Digits by 2-Digits

7. Mr. Jeffries gives three of his children a calculation each.



Albie

$$\begin{array}{r} 4\ 2\ 1\ 6 \\ \times\quad 3\ 2 \\ \hline \end{array}$$



Becky

24 x 5,234



Candice

Two thousand, eight hundred and sixty-five multiplied by 42

Which pupil has the largest answer?

GD

VF
HW/Ext

8. A bakery sells boxes of cupcakes. There are 16 cupcakes in a box.

Last year, the bakery sold three thousand, two hundred and seventy-three boxes. How many cupcakes did they sell?





The bakery also sells muffins with raspberries on the top. In one month, they used two thousand, eight hundred and sixty-nine raspberries.

How many raspberries will they use in the whole year?

GD

VF
HW/Ext

9. Stephanie is using the following digit cards to complete a multiplication calculation.

1	2	3	4	4

She uses three of the digits in this calculation:

$$\square\ 7\ 5\ \square \times \square\ 4$$

Stephanie wants to find calculations which have answers between ninety thousand and one hundred thousand.
Find three calculations she could use.

GD

RPS
HW/Ext

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Homework/Extension
Multiply 4-Digits by 2-Digits

Developing

1. Amita
2. 14,796 cupcakes; 28,932 cherries
3. Various answers, for example: 1,121 x 22 = 24,662; 1,221 x 21 = 25,641

Expected

4. Belinda
5. 24,336 cupcakes; 25,656 sprinkles
6. Various answers, for example: 2,211 x 13 = 28,743; 2,231 x 13 = 29,003; 2,211 x 14 = 30,954;

Greater Depth

7. Albie
8. 52,368 cupcakes; 34,428 raspberries
9. Various answers, for example: 2,751 x 34 = 93,534; 3,751 x 24 = 90,024; 2,754 x 34 = 93,636

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