



ANSWER SHEET



Monday -

Multiply 2 digits by 1 digit

Starter Answer

There are only two possible multiplications!
You have just spent a minute trying to find what isn't there!
The two multiplications are $7 \times 4 = 28$ and $8 \times 8 = 64$

There are other multiplications that make numbers like 19, 39, 55 and so on, but they all involve two-digit numbers being multiplied by single digits and that's what we'll be covering during this lesson!

Mild

Calculate 12×3 using place-value counters and the formal method.

T	O
10	1 1
10	1 1
10	1 1

$$\begin{array}{r} 12 \\ \times 3 \\ \hline 36 \end{array}$$

1.

Calculate 13×4 using place-value counters and the formal method.

T	O
10	1 1 1
10	1 1 1
10	1 1 1
10	1 1 1

$$\begin{array}{r} 13 \\ \times 4 \\ \hline 52 \\ 1 \end{array}$$

2.

Calculate 36×6 using place-value counters and the formal method.

T	O
10 10 10	1 1 1
10 10 10	1 1 1
10 10 10	1 1 1
10 10 10	1 1 1
10 10 10	1 1 1

$$\begin{array}{r} 36 \\ \times 6 \\ \hline 216 \\ 2 \end{array}$$

3.

4. 129, 144, 370,

Medium

1. 48

$$\begin{array}{r} \text{a)} \quad 32 \\ \times \quad 6 \\ \hline 192 \\ 1 \end{array}$$

$$\begin{array}{r} \text{b)} \quad 69 \\ \times \quad 5 \\ \hline 345 \\ 4 \end{array}$$

$$\begin{array}{r} \text{c)} \quad 26 \\ \times \quad 3 \\ \hline 78 \\ 1 \end{array}$$

$$\begin{array}{r} \text{d)} \quad 53 \\ \times \quad 6 \\ \hline 318 \\ 1 \end{array}$$

$$\begin{array}{r} \text{e)} \quad 85 \\ \times \quad 2 \\ \hline 170 \\ 1 \end{array}$$

$$\begin{array}{r} \text{f)} \quad 79 \\ \times \quad 4 \\ \hline 316 \\ 3 \end{array}$$

2.

3. 148

Show your working.

$$\begin{array}{r} 28 \\ \times \quad 6 \\ \hline 168 \\ 4 \end{array}$$

4. The class raises £168 altogether.

Spicy:

$$\begin{array}{r} \text{a)} \quad 32 \\ \times \quad 6 \\ \hline 192 \\ 1 \end{array}$$

$$\begin{array}{r} \text{b)} \quad 69 \\ \times \quad 5 \\ \hline 345 \\ 4 \end{array}$$

$$\begin{array}{r} \text{c)} \quad 26 \\ \times \quad 3 \\ \hline 78 \\ 1 \end{array}$$

$$\begin{array}{r} \text{d)} \quad 53 \\ \times \quad 6 \\ \hline 318 \\ 1 \end{array}$$

$$\begin{array}{r} \text{e)} \quad 85 \\ \times \quad 2 \\ \hline 170 \\ 1 \end{array}$$

$$\begin{array}{r} \text{f)} \quad 79 \\ \times \quad 4 \\ \hline 316 \\ 3 \end{array}$$

1.

$\begin{array}{r} \quad 61 \\ \times \quad 5 \\ \hline 305 \end{array}$	$\begin{array}{r} \quad 74 \\ \times \quad 7 \\ \hline 518 \\ 2 \end{array}$
---	--

2.

$\begin{array}{r} \quad 26 \\ \times \quad 4 \\ \hline 84 \end{array}$	
--	--

Tom used 29 tins.

	2	9
x		6
1	7	4

3.

Sometimes: 12×2
has only two digits;
 23×5 has three
digits.

Never: all
multiplications by
8 are even.

Sometimes: most
two-digit numbers
need exchanging,
but not 10 or 11

4.

Tuesday

Multiply 3 digits by 1 digit

Starter activity - flash back

- 1) What is 431 multiplied by 5?
- 2) Write all the factors of 12
- 3) Work out $42 \div 6$
- 4) Round 347 to the nearest 10

1.

2155, **factors:** (1,12,2,4,6,3) 7, 350

Mild:

Use the place value chart to help you.

-
- 609

3. $504 \times 6 = 3,024$

921 x 7

6,347 6,447 6,547

- 1.
2. 980
3. 740

4.

Spicy:

1.

Which calculation has the largest answer?

A. $591 \times 6 = 3,546$

2.

B. $903 \times 3 = 2,709$

Match the numbers which have a product of 2,432.

203

304

406

608

4

6

8

9

Which numbers cannot be used? **203, 406, 6 and 9**

3.

Beth didn't
exchange 20 tens
for 2 hundreds.

$814 \times 5 = 4,070$

$814 \times 3 = 2,442$

4.

Wednesday:

Starter question:

Here are some possible answers. How many more did you find?

$0 = 3 - 2 - 1$

$1 = 3 \times 1$ then $- 2$ or divide 3 by the answer to $2 - 1$

$2 = 3 + 1$ then $\div 2$

$4 = 3 - 1$ then $\times 2$ or $12 \div 3$

$5 = 2 \times 3$ then $- 1$

$6 = 3 + 2 + 1$

$7 = 21 \div 3$

$9 = 12 - 3$ or $2 + 1$ then $\times 3$

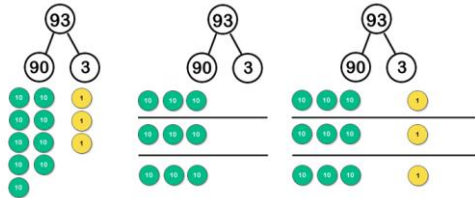
$11 = 13 - 2$

Mild:

First, Carly partitions 86 into 80 and 6 and then models both parts using place-value counters. She then divides the tens by 2 ($80 \div 2 = 40$) and divides the ones by 2 ($6 \div 2 = 3$). The answer is the total of 40 and 3 (so, $86 \div 2 = 43$).

1.

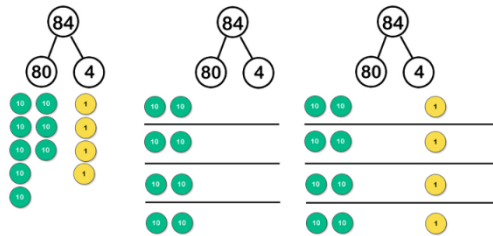
Use this method to find the answer to $93 \div 3$.



So, $93 \div 3 = 31$

2.

Use place-value counters and partitioning to find the answer to $84 \div 4$.



So, $84 \div 4 = 21$

Medium:

Match the following statements with the correct card.

My calculation needs no exchange.	$77 \div 7 = 11$
My calculation is solved incorrectly.	$90 \div 5 = 12$
My calculation needs to exchange.	$96 \div 8 = 12$

1.

True or false? The answer is 24.

$75 \div 3 = \square$

False; $75 \div 3 = 25$

2.

3. 21, 23, 22, 32

Spicy:

1. 15, 14, 17, 14

2.

Macey is correct because 70 is not a multiple of 3 and if you try to share 7 tens between three you cannot do it equally. This is when she will need an exchange.

3.

False because...

$$57 \div 3 = 19$$

$$72 \div 4 = 18$$

$$85 \div 5 = 17$$

72 can also be divided equally by 3 and children may investigate this.

4.

Possible response:
I agree with Jakob because the counters have been shared between four groups when they should have been shared between three. Nelly is also correct but hasn't explained why.

Thursday:

Starter:

Remainders of more than 2 will only be possible when dividing by 5 or by 7 (the other numbers are too small). There are 11 possible divisions:

$$13 \div 5 = 2 \text{ remainder } 3$$

$$25 \div 7 = 3 \text{ remainder } 4$$

$$23 \div 5 = 4 \text{ remainder } 3$$

$$31 \div 7 = 4 \text{ remainder } 3$$

$$73 \div 5 = 14 \text{ remainder } 3$$

$$32 \div 7 = 4 \text{ remainder } 4$$

$$12 \div 7 = 1 \text{ remainder } 5$$

$$52 \div 7 = 7 \text{ remainder } 3$$

$$13 \div 7 = 1 \text{ remainder } 6$$

$$53 \div 7 = 7 \text{ remainder } 4$$

$$17 \div 7 = 2 \text{ remainder } 3$$

Mild

1a. $268 \div 2 = 134$

2a. $639 \div 3 = 213$

3a. **True.**

4a. **>**

Medium

1. 226, 113, 54

2. 47, 21, 54

False, the correct answer is 108

<

Spicy

a) $463 \div 4 = 115 \text{ remainder } 3$

b) $974 \div 9 = 108 \text{ remainder } 2$

c) $892 \div 5 = 178 \text{ remainder } 2$

d) $353 \div 3 = 117 \text{ remainder } 2$

e) $867 \div 7 = 123 \text{ remainder } 6$

First, Leah partitions 620 into numbers that she thinks she can divide by 4 more easily. She then divides each part by 4 and then combines her answers to find the overall answer.

$$620 \div 4 = 155$$

Children will need to complete the short divisions before comparing them.

Answers:
 $123 > 124$
 $122 < 125$
 $146 = 146$

Divisible by 2: Any even number created.

Divisible by 3: 336, 624, 921

Divisible by 4: 228, 408, 624

Divisible by 5: 165

Divisible by 6: 534

Divisible by 7: 714

Divisible by 8: 840

There is no 3 digit number divisible by 9 however there is a pattern worth investigating!