

# Warm-Up Challenge

Week 7 – Home Learning

## Flashback 4

- 1) If  $x = 15$ , what is the value of  $3x$ ?
- 2) 62% of the sweets in a bag are red.  
What percentage of the sweets are not red?
- 3) Multiply 4.7 by 5
- 4) Add 2,999 to 18,346



Complete the following calculation:

$$2544 \div 12$$

Go onto the next slide to see the division process for this calculation.

Teaching Input:

Week 7 – Home Learning

$$\begin{array}{r} \phantom{12} \overline{2 \phantom{0} 1 \phantom{0} 2} \\ 12 \overline{) 2544} \\ \underline{- 24} \phantom{0} \\ 1 \phantom{0} \\ \underline{- 12} \phantom{0} \\ 2 \phantom{0} \\ \underline{24} \phantom{0} \\ 0 \end{array}$$

Remember to  
list your  
multiples of 12

Let's start by creating a list of the multiples of 12. We can do this by multiplying 12 by 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Complete the following calculation:

$$7397 \div 13$$

Go onto the next slide to see the division process for this calculation.



Teaching Input:

Week 7 – Home Learning

$$\begin{array}{r} \text{5} \quad \text{6} \quad \text{9} \\ 13 \overline{) 7397} \\ \underline{- 65} \phantom{00} \\ 8 \phantom{00} \\ \underline{- 78} \phantom{00} \\ 11 \phantom{00} \\ 117 \end{array}$$

Remember to  
list your  
multiples of 13

Let's start by creating a list of multiples of 13 and a larger number.

## Teaching Input:

## Week 7 – Home Learning

Now use your knowledge of multiples to help you solve these long division questions containing remainders:

$$2564 \div 22 =$$

		0	1	1	6	r12
2	2	2	5	6	4	
	-	2	2			
			3	6		
	-		2	2		
			1	4	4	
			1	3	2	
				1	2	

$$1178 \div 21 =$$

		0	0	5	6	r2
2	1	1	1	7	8	
	-	1	0	5		
			1	2	8	
	-		1	2	6	
					2	

Remember to  
list your  
multiples

# Independent Activity: Now grab a pen and paper and see how many questions you can answer

- 1 Complete the number track with the multiples of 15

15								
----	--	--	--	--	--	--	--	--

Use the multiples of 15 to complete the divisions.

15	7	6	0	

15	1	6	3	

15	9	4	6	

15	7	4	0	

2



I am trying to complete this using long division, but it doesn't seem to help.

	0	0	
15	1	3	6

Look at Dexter's working.

What problem is he facing? Talk about it with a partner.

3

Work out the divisions.

- $764 \div 14$
- $1,840 \div 18$

4

A school has 380 pupils, 24 staff and 9 governors.

Everyone is invited to a special meal.

Each table seats 12 people.

- How many tables are needed?
- How did you work this out? Did you use the same method as your partner?

5

Which of these calculation cards leave a remainder greater than 10?

$899 \div 30$	$899 \div 8$	$899 \div 11$	$899 \div 24$	$899 \div 99$
---------------	--------------	---------------	---------------	---------------

6

Tommy needs to buy 650 balloons for a festival.

How much would it cost to buy the balloons from each shop?

Party Supplies

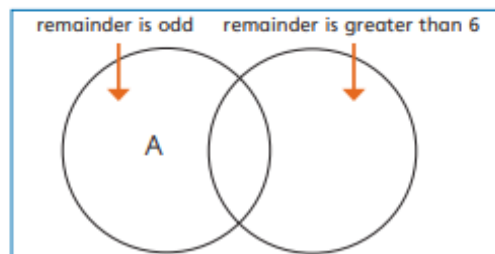


Fun Stores



7

Label the sorting diagram with the divisions. The first one has been done for you.



A  $901 \div 16$

C  $910 \div 16$

E  $901 \div 17$

G  $910 \div 17$

B  $902 \div 16$

D  $920 \div 16$

F  $902 \div 17$

H  $920 \div 17$

8

1	2	3	4	5
---	---	---	---	---

Use each digit card once to complete the division in different ways.

			$\div$		
--	--	--	--------	--	--

Experiment to find divisions that give:

- the smallest possible remainder
- the largest remainder
- a remainder that is a multiple of 5

Talk about your answers with a partner.

**Mastery Challenge:** *Now lets see if we can really challenge that brain...*

Explain the mistakes

$$3432 \div 24$$

**Mistake 1**

$$\begin{array}{r} 43 \\ 24 \overline{) 3432} \\ \underline{24} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 103 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \underline{96} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 72 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \underline{72} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 0 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \end{array}$$

**Mistake 2**

$$\begin{array}{r} 13 \\ 24 \overline{) 3432} \\ \underline{24} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 103 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \underline{72} \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ 312 \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\ \phantom{0} \phantom{0} \phantom{0} \phantom{0} \end{array}$$