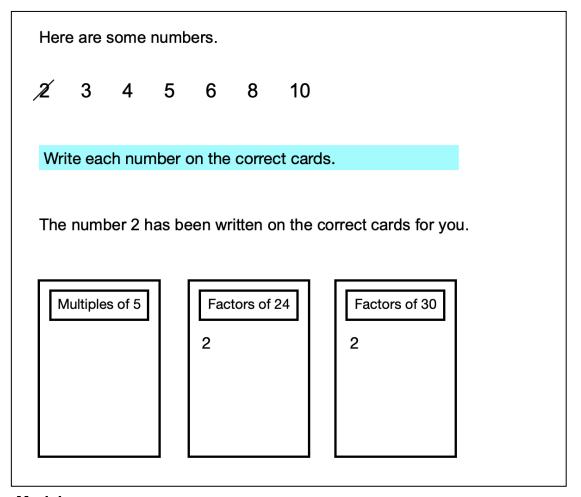


## Year 5 Problems Summer 2 Week 5

### **Objective:**

Identify multiples and factors.



#### Model answer

It would be useful to begin by reminding ourselves about the mathematical meanings of the words **multiples** and **factors**:

A **multiple** is a number that is in a times table. For example multiples of five are 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75 ... and they carry on and on in fives.

**Factors** are whole numbers that divide exactly into another number. The factors of 20 are 1, 2, 4, 5, 10 and 20.

We have a list of multiples of 5 above. It could also be useful to list the factors of 24 and 30 now. I shall do this as factor pairs, as this is a useful way of making sure we do not miss any.



#### Hampshire Mathematics Team Home Resources



$24 = 1 \times 24$	(1, 24)	$30 = 1 \times 30$	(1, 30)
24 = 2 x 12	(2, 12)	$30 = 2 \times 15$	(2, 15)
$24 = 3 \times 8$	(3, 8)	$30 = 3 \times 10$	(3, 10)
$24 = 4 \times 6$	(4, 6)	$30 = 5 \times 6$	(5, 6)

With a problem like this where we need to make sure we have found all the possible answers it is very important to work systematically (to a plan and in an ordered way). So I will work my way through the list of numbers starting with the next number 3.

If I look at the lists above (or use my knowledge of multiplication tables) I can see that 3 is not a multiple of 5 but is a factor of both 24 (3 x 8) and 30 (3 x 10). I record a 3 on the Factors of 24 card and the Factors of 30 card. I now put a line through the 3 in the list of numbers so I know I have finished with it. I can now think about the number 4 and the remaining numbers following the same method of working as I did for the number 3.

The answer to the problem is on the next page:





Here are some numbers.

2 3 4 5 6 8 10

Write each number on the correct cards.

The number 2 has been written on the correct cards for you.

Multiples of 5

5 10 Factors of 24

2

6 8 Factors of 30

2

5 6

10



# Now try these problems.

Here	e are	some	numb	ers.								
2	3	4	6	8	9	12						
Writ	te eac	h num	nber d	on the	correc	t cards						
Th		O b	h -		: <b></b> .	- 41		<i>(</i>				
ine	numr	er 2 n	as be	en wr	itten o	n the co	orrect	cards t	or yo	J.		
М	ultiple	s of 3		Fact	tors of 1	8	Fac	ctors of	48			
				2			2					
			]									

Space for working



Here are some numbers.										
Æ	5	6	7	8	10	12				
Wri	te eac	h num	ber c	n the	correc	t cards				
The	numb	er 4 h	as be	en wri	tten or	n the co	orrect card	s for yo	u.	
М	ultiples	of 2	] [	Fact	ors of 2	8	Factors	of 35		
4				4		_				

Space for working



Answers:

Here are some numbers.

2 3 A 8 8 9 12

Write each number on the correct cards.

The number 2 has been written on the correct cards for you.

Multiples of 3

9

12

Factors of 18

3 6

Factors of 48

6 8

12



Answers:

Here are some numbers.

A 5 6 7 8 10 12

Write each number on the correct cards.

The number 4 has been written on the correct cards for you.

Factors of 28
4
7

Factors of 35
5
7