

# Varied Fluency

## Step 9: Common Factors

### National Curriculum Objectives:

Mathematics Year 6: (6C5) [Identify common factors, common multiples and prime numbers](#)

### Differentiation:

**Developing** Questions to support understanding common factors, using knowledge of the 2, 3, 4, 5 and 10 times tables.

**Expected** Questions to support understanding common factors, using knowledge of times tables up to 12.

**Greater Depth** Questions to support finding common factors beyond 12, as well as the lowest common factor, using knowledge of known times tables facts.

More [Year 6 Four Operations](#) resources.

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## Common Factors

1a. Tick the factors of each number to find some common factors of 12 and 20.

	12	20
2	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>



VF

## Common Factors

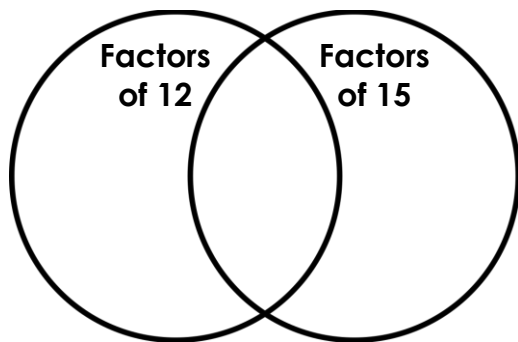
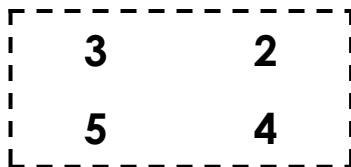
1b. Tick the factors of each number to find some common factors of 18 and 30.

	18	30
2	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>



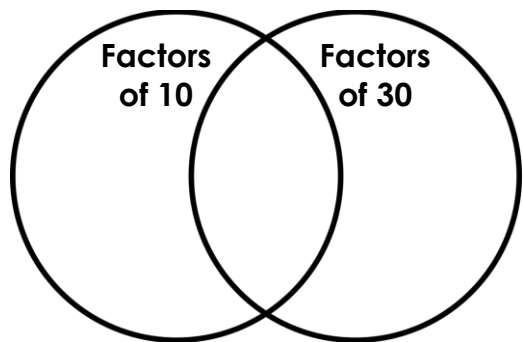
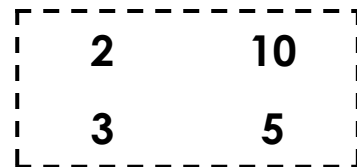
VF

2a. Sort the numbers into the Venn diagram.



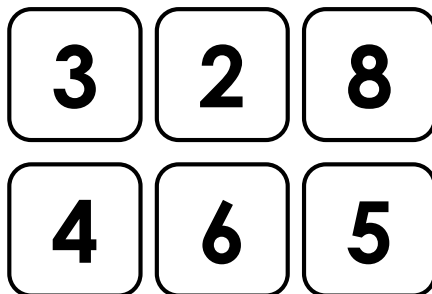
VF

2b. Sort the numbers into the Venn diagram.



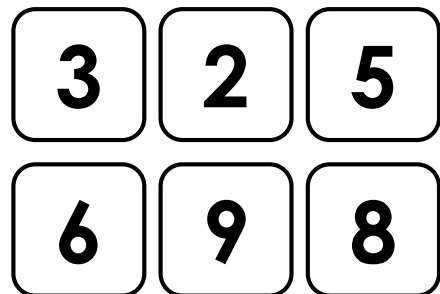
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3a. Which of these numbers are common factors of 16 and 24?



VF

3b. Which of these numbers are common factors of 12 and 18?



VF

4a. Find 3 common factors of the following numbers.

20      10



VF

4b. Find 3 common factors of the following numbers.

24      12



VF

## Common Factors

5a. Tick the factors of each number to find some common factors of 56 and 72.

	56	72
6		
7		
8		
9		



VF

## Common Factors

5b. Tick the factors of each number to find some common factors of 42 and 84.

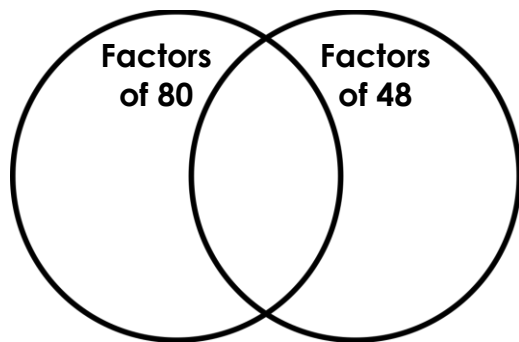
	42	84
7		
8		
9		
12		



VF

6a. Sort the numbers into the Venn diagram.

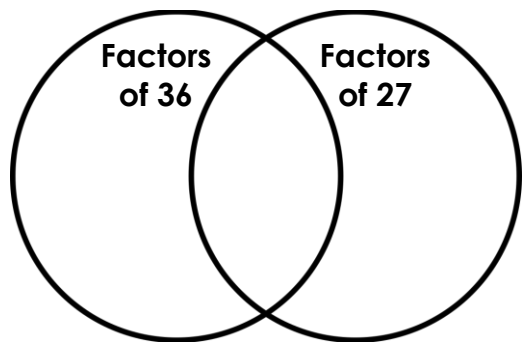
8	12	2
5	4	10



VF

6b. Sort the numbers into the Venn diagram.

3	6	4
2	9	12



VF

7a. Which of these numbers are common factors of 60 and 90?

2	6	9
3	10	5



VF

7b. Which of these numbers are common factors of 56 and 77?

5	8	11
7	6	2



VF

8a. Find 3 common factors of the following numbers.

60      24



VF

8b. Find 3 common factors of the following numbers.

48      72



VF

## Common Factors

9a. Tick the factors of each number to find some common factors of 75 and 150.

	75	150
15		
20		
25		
50		



VF

## Common Factors

9b. Tick the factors of each number to find some common factors of 350 and 420.

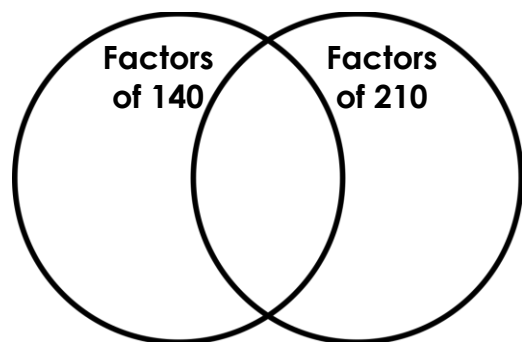
	350	420
7		
20		
25		
50		



VF

10a. Sort the numbers into the Venn diagram.

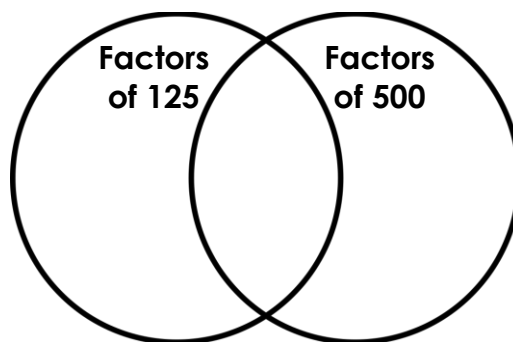
14	105	13
30	28	35



VF

10b. Sort the numbers into the Venn diagram.

4	25	5
20	16	125



VF

11a. Which of these numbers are common factors of 234 and 522?

4	1	6
13	9	2



VF

11b. Which of these numbers are common factors of 630 and 108?

3	9	8
6	12	1



VF

12a. Including the lowest common factor, find 5 common factors of these numbers.

**225      375      900**



VF

12b. Including the lowest common factor, find 5 common factors of these numbers.

**156      104      312**



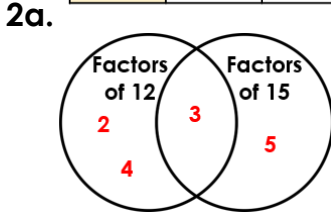
VF

## Varied Fluency Common Factors

### Developing

1a.

	12	20
2	✓	✓
3	✓	
4	✓	✓
5		✓



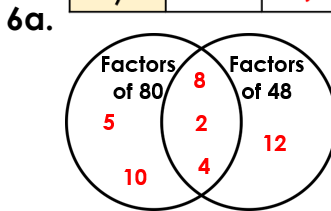
3a. 4, 8, 2

4a. Various answers, for example: 2, 5 and 10

### Expected

5a.

	56	72
6		✓
7	✓	
8	✓	✓
9		✓



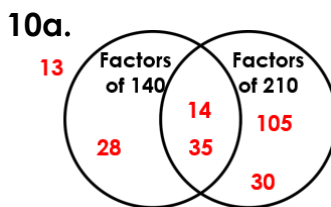
7a. 2, 6, 3, 10, 5

8a. Various answers, for example: 4, 6 and 12

### Greater Depth

9a.

	75	150
15	✓	✓
20		
25	✓	✓
50		✓



11a. 1, 6, 9, 2

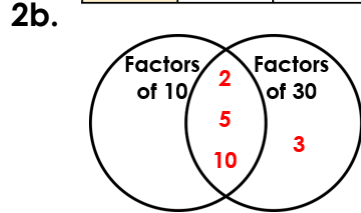
12a. Various answers, for example: 1, 3, 5, 15 and 25.

## Varied Fluency Common Factors

### Developing

1b.

	18	20
2	✓	✓
4		✓
5		✓
10		✓



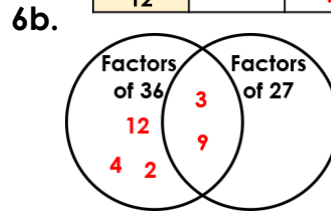
3b. 3, 2, 6

4b. Various answers, for example: 2, 3 and 4.

### Expected

5b.

	42	84
7	✓	✓
8		
9		
12		✓



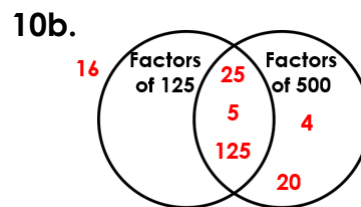
7b. 7

8b. Various answers, for example: 4, 6 and 8

### Greater Depth

9b.

	350	420
7	✓	✓
20		✓
25	✓	
50	✓	



11b. 3, 9, 6, 1

12a. Various answers, for example: 1, 2, 4, 13 and 52.