

# Homework/Extension

## Step 9: Pattern Spotting

### National Curriculum Objectives:

Mathematics Year 3: (3C1) [Add and subtract numbers mentally, including three-digit number and ones; three-digit number and tens; three-digit number and hundreds](#)  
Mathematics Year 3: (3C4) [Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Insert the correct numbers using knowledge of spotting patterns to add and subtract up to three-digit numbers. Using Base 10 and some numerals with no bridging in any questions.

**Expected** Insert the correct numbers using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using place value counters and numerals.

**Greater Depth** Insert the correct numbers using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using mixed representations of numerals and words within the same question.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Tick the correct calculations using knowledge of spotting patterns to add and subtract up to three-digit numbers. Using Base 10 and some numerals with no bridging in any questions.

**Expected** Tick the correct calculations using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using place value counters and numerals.

**Greater Depth** Tick the correct calculations using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using mixed representations of numerals and words within the same question.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Explain if a statement is correct using knowledge of spotting patterns to add and subtract up to three-digit numbers. Using Base 10 and some numerals with no bridging in any questions.

**Expected** Explain if a statement is correct using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using place value counters and numerals. Words used within the same question.

**Greater Depth** Explain if a statement is correct using knowledge of spotting patterns to add and subtract up to three-digit numbers where bridging takes place. Using mixed representations of numerals and words within the same question.

More [Year 3 Addition and Subtraction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Pattern Spotting

1. Use the number cards to complete the calculations.

A.  $543 - \square = 541$

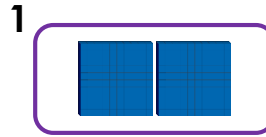
$543 - \square = 523$

$543 - \square = 343$

B.  $219 = \square + 216$

$246 = \square + 216$

$516 = \square + 216$



VF  
HW/Ext

2. Tick the calculations that are correct.

A.  $225 + 3 = 228$

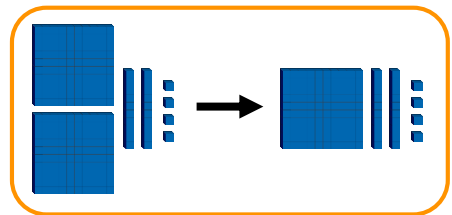
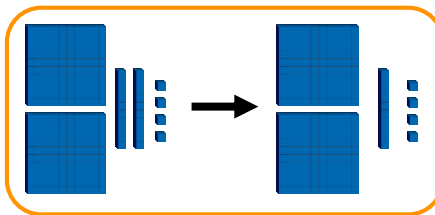
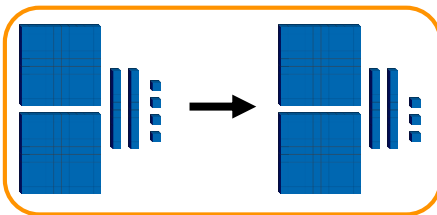
B.  $651 - 40 = 611$

C.  $380 + 200 = 480$



VF  
HW/Ext

3. Samantha is spotting patterns.



The pattern is  $-1, -10, -100$

Is she correct? Explain how you know.



RPS  
HW/Ext

# Pattern Spotting

4. Use the number cards to complete the calculations.

A.  $471 - \square = 467$

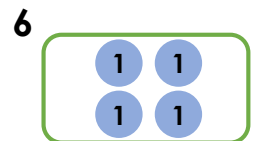
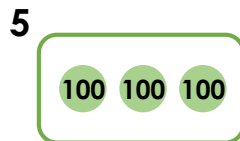
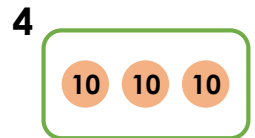
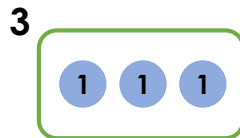
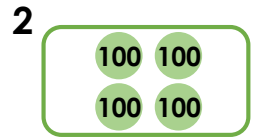
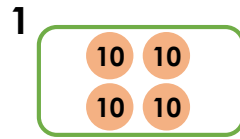
$471 - \square = 431$

$471 - \square = 71$

B.  $392 = \square + 389$

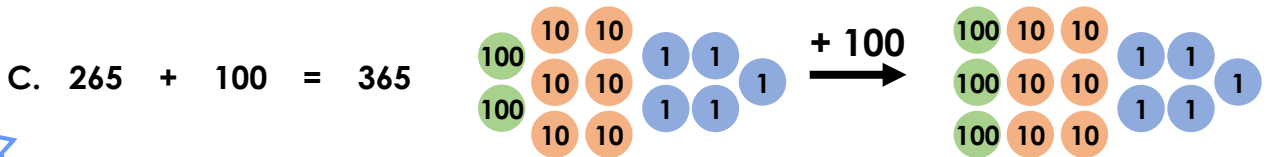
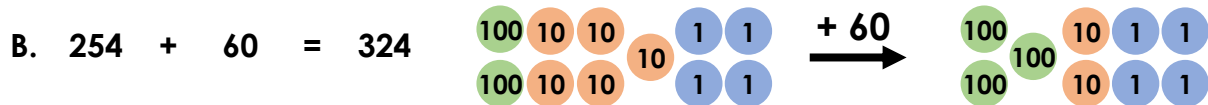
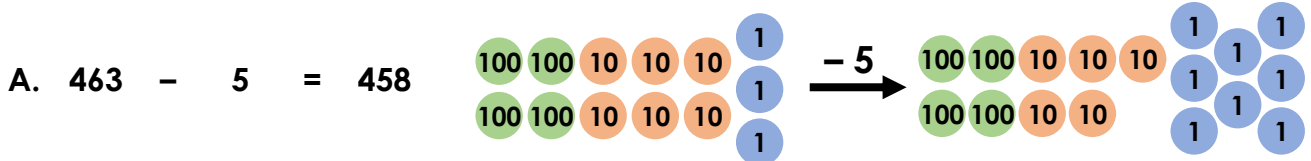
$419 = \square + 389$

$689 = \square + 389$



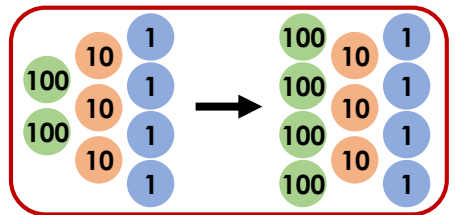
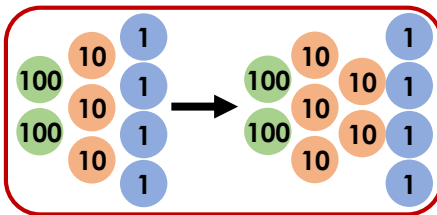
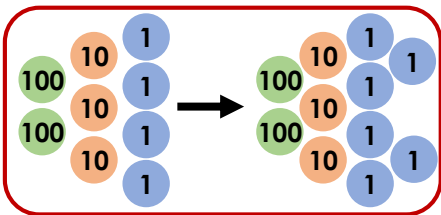
VF  
HW/Ext

5. Tick the calculations that are correct.



VF  
HW/Ext

6. Megan is spotting patterns.



The pattern is + two, + twenty, + two hundred

Is she correct? Explain how you know.



RPS  
HW/Ext

# Pattern Spotting

7. Use the number cards to complete the calculations.

A.  $987 - \square = 979$

$987 - \square = 907$

$987 - \square = 187$

B.  $364 = \square + 358$

$418 = \square + 358$

$958 = \square + 358$

1 six

2 eight hundred

3 eighty

4 sixty

5 six hundred

6 eight



VF  
HW/Ext

8. Tick the calculations that are correct.

A. three hundred and thirty-six - nine = 327

B. forty + eight hundred and ninety-four = 934

C. five hundred and fifty - three hundred = 150

D. seven hundred and sixty-one + two hundred = 861



VF  
HW/Ext

9. Lucian is spotting patterns.

four hundred and eighty-six → four hundred and ninety-one

four hundred and eighty-six → five hundred and thirty-six

four hundred and eighty-six → nine hundred and eighty-six



The pattern is + 5, + 60, + 500

Is he correct? Explain how you know.



RPS  
HW/Ext

## Homework/Extension Pattern Spotting

### Developing

1. **A. 6, 2, 1; B. 3, 5, 4**
2. **A and B**
3. **She is correct because  $224 - 1 = 223$ ;  $224 - 10 = 214$ ;  $224 - 100 = 124$**

### Expected

4. **A. 6, 1, 2; B. 3, 4, 5**
5. **A and C**
6. **She is correct because  $234 + 2 = 236$ ;  $234 + 20 = 254$ ;  $234 + 200 = 434$**

### Greater Depth

7. **A. 6, 3, 2; B. 1, 4, 5**
8. **A and B**
9. **He is incorrect because the pattern is + 5, + 50, + 500.**