

# ASSESSMENT

## Count by Fractions

Patterns Algebra 23 Addition Subtraction 26 Fractions Decimals 15

We have included the starred Levels with a logical basis to the grade Level, in this assessment, allowing children to demonstrate their highest Level of understanding. If children are familiar with models other than these, they may demonstrate their understanding using those.

**PA 1** Copy, continue patterns, identifying the part that repeats

**PA 2** Recognise when an error occurs in patterns of objects, shapes and pictures using the part that repeats

**PA 3** Identify the number of elements in the part that repeats in patterns of objects, shapes and pictures

**PA 8 MD 3** Number patterns rhythmic / skip counting by 2s, 5s and 10s naming multiples

Counting by 5s – multiples of 5.  
 0    5    10    15    20

Counting by 5s – non-multiples of 5.  
 1    6    11    16    21

**PA 10** Odd and even number patterns, recognising when an error occurs

**Even Numbers**  
Pattern starts with an even number  
Pattern repeats by adding 2  
2, 4, 6, 8

**Odd Numbers**  
Pattern starts with an odd number  
Pattern repeats by adding 2  
1, 3, 5, 7

**PA 13** Describe patterns with numbers and identify missing elements

1, 3, 5, 7, \_\_\_\_, 11, 13, ...

**PA 19** Describe informal rule for number pattern, then create pattern

Rule: start at 50 and repeatedly add 5  
50, 55, 60, 65, 70, 75...

Rule: start at 48 and repeatedly subtract 3  
48, 45, 42, 39, 36...

**PA 23 AS 26 FD 15** Number patterns with fractions increase through addition. Number patterns with fractions, decrease through subtraction

Rule: Repeats by adding  $\frac{1}{2}$

Rule: Start at  $\frac{1}{2}$  and repeatedly add  $\frac{1}{2}$

Rule: multiples of  $\frac{1}{2}$

Rule: Starts from 5 and repeats by subtracting  $\frac{1}{2}$

Rule: Multiples of  $\frac{1}{2}$  backwards from 5

**PA 24 MD 18 1** Skip counting multiples, identifying the rule and terms through multiplication, non-multiples, identifying the rule and terms. Describe a rule using multiplication then create number pattern

Rule: multiply term by 5

|         |                   |
|---------|-------------------|
| Term 1: | $1 \times 5 = 5$  |
| Term 2: | $2 \times 5 = 10$ |
| Term 3: | $3 \times 5 = 15$ |

Rule: multiply term by 5, then subtract from 55

|            |                    |                |
|------------|--------------------|----------------|
| Term 1:    | $1 \times 5 = 5$   | $55 - 5 = 50$  |
| Term 2:    | $2 \times 5 = 10$  | $55 - 10 = 45$ |
| Term 3:    | $3 \times 5 = 15$  | $55 - 15 = 40$ |
| 10th Term: | $10 \times 5 = 50$ | $55 - 50 = 5$  |

Rule: multiply term by 5, then add 2

|            |                    |               |
|------------|--------------------|---------------|
| Term 1:    | $1 \times 5 = 5$   | $5 + 2 = 7$   |
| Term 2:    | $2 \times 5 = 10$  | $10 + 2 = 12$ |
| Term 3:    | $3 \times 5 = 15$  | $15 + 2 = 17$ |
| 10th Term: | $10 \times 5 = 50$ | $50 + 2 = 52$ |

Rule: multiply term by 5, then subtract from 57

|            |                    |                |
|------------|--------------------|----------------|
| Term 1:    | $1 \times 5 = 5$   | $57 - 5 = 52$  |
| Term 2:    | $2 \times 5 = 10$  | $57 - 10 = 47$ |
| Term 3:    | $3 \times 5 = 15$  | $57 - 15 = 42$ |
| 10th Term: | $10 \times 5 = 50$ | $57 - 50 = 7$  |

**PA 28 FD 24 PV 27** Patterns that increase by adding fractions and decrease by subtracting fractions. Patterns that increase by adding decimals and decrease by subtracting decimals

Repeatedly add  $\frac{1}{3}$

Repeatedly subtract  $\frac{1}{3}$

Start at 0.4 and Repeatedly add 0.3

Start at 4 and Repeatedly subtract 0.3

**PA 29 AS 31 PV 31 FD 34** Number patterns with whole numbers, fraction, decimals + Geometric shape number patterns in a ratio, describing the rule using the relationship between the term and the number

4, 7, 10, 13, ...

rule: Term  $\times 3$ , then  $+ 1 =$  Number

|        |   |   |    |    |  |  |
|--------|---|---|----|----|--|--|
| Term   | 1 | 2 | 3  | 10 |  |  |
| Number | 4 | 7 | 10 | 31 |  |  |

39, 36, 33, 30, ...

rule: term  $\times 3$ , then subtract from 42 = number

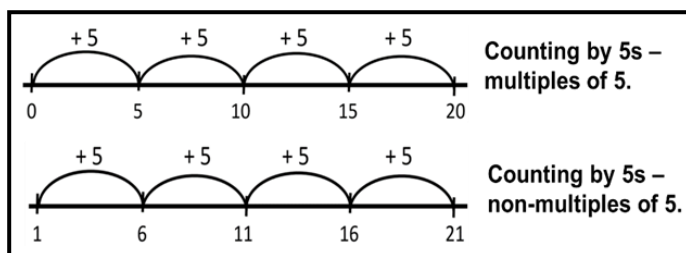
|        |    |    |    |    |  |  |
|--------|----|----|----|----|--|--|
| Term   | 1  | 2  | 3  | 10 |  |  |
| Number | 39 | 36 | 33 | 12 |  |  |

## PRE - ASSESSMENT

1. Select the Level that allows you to demonstrate your highest understanding.
2. Record a pattern that increases with whole numbers OR a rule for the way a pattern of whole numbers increases.
3. Record the pattern on a number line.
4. Record the rule for the way the pattern repeats, and use the rule to find a missing term or the next term.
5. Record a pattern that decreases with whole numbers OR a rule for the way a pattern of whole numbers increases.
6. Record the pattern on a number line.
7. Record the rule for the way the pattern repeats, and use the rule to find a missing term or the next term.

*If you are unable to demonstrate your understanding using the models below, you may demonstrate your understanding in any way that you like.*

### Skip Counting by 2s, 5s and 10s, Naming Multiples



### Informal Rule, Then Create Number Pattern

Rule: start at 50 and repeatedly add 5  
50, 55, 60, 65, 70, 75...

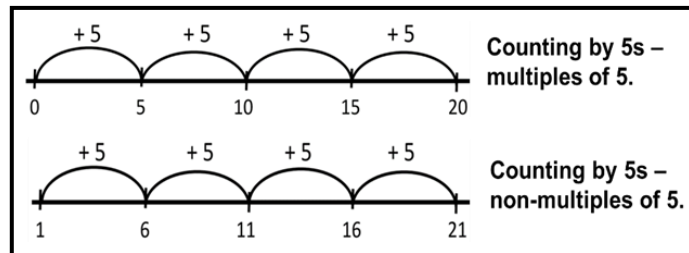
Rule: start at 48 and repeatedly subtract 3  
48, 45, 42, 39, 36...

## POST - ASSESSMENT

1. Select the Level that allows you to demonstrate your highest understanding.
2. Record a pattern that increases with whole numbers or fractions OR a rule for the way a pattern increases.
3. Record the pattern on a number line.
4. Record the rule for the way the pattern repeats, and use the rule to find a missing term or a higher term.
5. Record a pattern that decreases with whole numbers or fractions OR a rule for the way a pattern increases.
6. Record the pattern on a number line.
7. Record the rule for the way the pattern repeats, and use the rule to find a missing term or a higher term.

*If you are unable to demonstrate your understanding using the models below, you may demonstrate your understanding in any way that you like.*

### Skip Counting by 2s, 5s and 10s, Naming Multiples



### Informal Rule, Then Create Number Pattern

Rule: start at 50 and repeatedly add 5  
50, 55, 60, 65, 70, 75...

Rule: start at 48 and repeatedly subtract 3  
48, 45, 42, 39, 36...

### Skip Count Multiples, Rule and Terms Through Multiplication

