

## Introduction

*This diagnostic assessment is designed to evaluate the understanding of basic mathematical concepts in children aged 6-8 years old. The assessment aims to identify areas of strength and weakness, informing future instruction.*

## Section 1: Multiple Choice Questions

Choose the correct answer for each question:

1. What comes after 50?

- A) 49
- B) 51
- C) 100
- D) 200

2. If I have 5 pencils and I add 2 more, how many pencils do I have now?

- A) 3
- B) 5
- C) 7
- D) 10

3. What shape has four right angles and four sides of equal length?

- A) Square
- B) Circle
- C) Triangle
- D) Rectangle

## Section 2: Short Answer Questions

Answer each question in complete sentences:

1. Write the number 75 in words.

2. If I have 8 crayons and I take away 2, how many crayons do I have left?

3. Draw a picture of a basic shape (e.g. square, circle, triangle) and label its features (e.g. sides, corners, etc.).

## Section 3: Interactive Games

Complete each game:

1. Complete the sequence: 1, 2, 3, \_\_, 5

2. Identify the next shape in the pattern: square, circle, square, circle, \_\_

## Section 4: Word Problems

*Read each problem carefully and answer in complete sentences:*

1. Tom has 3 toy cars. His friend gives him 2 more. How many toy cars does Tom have now?

2. Sarah has 12 pencils. She gives 4 to her brother. How many pencils does Sarah have left?

## Section 5: Shape Identification

*Identify each shape:*

1. Identify the shape:  
(a drawing of a triangle)

2. Create a shape with 5 sides.

## Conclusion

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*This diagnostic assessment is designed to evaluate the understanding of basic mathematical concepts in children aged 6-8 years old. The assessment includes multiple choice questions, short answer questions, interactive games, word problems, and shape identification activities.*

## Answer Key

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*For teacher reference only:*

1. Section 1: Multiple Choice Questions
  1. B) 51
  2. C) 7
  3. A) Square
2. Section 2: Short Answer Questions
  4. Seventy-five
  5. 6
  6. (Student's drawing and labeling of a basic shape)
3. Section 3: Interactive Games
  1. 4
  2. square
4. Section 4: Word Problems
  7. 5
  8. 8
5. Section 5: Shape Identification
  9. triangle
  10. (Student's creation of a shape with 5 sides)

