Enlargement Assessment Worksheet

Introduction

This worksheet is designed to assess your understanding of the concept of enlargement, applying enlargement to scale drawings, calculating scale factors, and describing the effects of enlargement on shape and size.

Section 1: Multiple Choice Questions

Choose the correct answer for each question.

1. What is the definition of enlargement in geometry?
   - A) A transformation that reduces the size of a shape
   - B) A transformation that increases the size of a shape
   - C) A transformation that changes the orientation of a shape
   - D) A transformation that reflects a shape
2. What is the scale factor of an enlargement that increases the size of a shape by 50%?
   - A) 1.5
   - B) 2
   - C) 2.5
   - D) 3
3. What happens to the shape of an object when it is enlarged?
   - A) It remains the same
   - B) It changes
   - C) It becomes smaller
   - D) It becomes larger
4. What is the effect of enlargement on the area of a shape?
   - A) It decreases
   - B) It remains the same
   - C) It increases
   - D) It becomes zero
5. What is the scale factor of an enlargement that reduces the size of a shape by 25%?
   - A) 0.75
   - B) 0.5
   - C) 0.25
   - D) 0.1

Section 2: Short Answer Questions

Show your working and explain your answers.

1. A rectangle with a length of 6 cm and a width of 4 cm is enlarged by a scale factor of 2. What are the new dimensions of the rectangle?

2. A triangle with a base of 5 cm and a height of 6 cm is enlarged by a scale factor of 1.5. What is the new area of the triangle?

3. A circle with a radius of 3 cm is enlarged by a scale factor of 2. What is the new circumference of the circle?

Section 3: Project-Based Task

Design a scale drawing of a room in a house, including the furniture and fixtures. The room should be enlarged by a scale factor of 2. Calculate the new dimensions of the room and the furniture, and describe the effects of the enlargement on the shape and size of the room and its contents.

Project Requirements:

- Include a title and a brief description of the room
- Draw the room and furniture to scale
- Calculate the new dimensions of the room and furniture after enlargement
- Describe the effects of the enlargement on the shape and size of the room and its contents

[Space for project work]

[Space for project work]

Section 4: Word Problems

Solve the following word problems.

1. A map of a city is enlarged by a scale factor of 1.5. If the original map had a scale of 1:1000, what is the new scale of the enlarged map?

2. A picture is enlarged by a scale factor of 2. If the original picture had a width of 10 cm and a height of 15 cm, what are the new dimensions of the enlarged picture?

Section 5: Critical Thinking

Answer the following critical thinking questions.

1. How does the scale factor of an enlargement affect the area of a shape?

2. What are the advantages and disadvantages of using enlargement in real-world applications?

Conclusion

This worksheet is designed to assess your understanding of the concept of enlargement and its applications. Remember to show your working and explain your answers. Good luck!

Additional Resources

For additional practice and review, visit our website for more worksheets and interactive activities.

Online Resources:

- Interactive enlargement simulations
- Video tutorials and explanations
- Practice worksheets and quizzes