

## Fun with Geometry (Level 2)

### Assessment Questions

#### Patterns Everywhere

1. Talk about your daily routine.
2. Write a pattern of words that are connected by an idea. Draw a pattern using one object/line/shape. Example:



4. What is a pattern? Give examples of natural patterns (flowers, trees, fruits) and artificial patterns (tiles, designs).
5. 1, 3, 5, 7, 9, 11... What number comes next?
6. 1, 1, 2, 3, 5, 8, 13, 21, 34... What number comes next?
7. Try to find a similar pattern to your day with a classmate/friend. How do you notice a pattern?

#### Build your Dream House

1. Fill in the blanks:
  - a) A cone has \_\_\_ face(s), \_\_\_ edge(s), and \_\_\_ vertex/vertices
  - b) A cylinder has 3 \_\_\_\_\_, 2 \_\_\_\_\_, and 0 \_\_\_\_\_
  - c) A \_\_\_\_\_ has 5 faces, 8 edges, and 5 vertices. The faces are the flat sides and square base
2. How many circles does a cylinder have?
3. What are the shapes of the following items: ball, TV, Coke can, dice?
4. Draw a cube and label the following on it:
  - a) 1 edge
  - b) 1 face
  - c) 1 vertex
5. You have a circular piece of paper. Write in two or three sentences how to make a cone using this piece of paper.
6. Compare 2D shapes and 3D shapes. List one difference and one similarity.

7. How is a cube the same as a rectangular prism?

**Draw and Calculate like an Architect**

1. Fill in the blanks: the longer side of a rectangle is called \_\_\_\_\_ and the shorter side is called \_\_\_\_\_.

2. Choose the correct answer: The area of a shape is the size of the floor surface \_\_\_\_\_ (inside, outside) the shape.

3. What is meant by the perimeter of a shape?

a) how big the shape is

b) how long the shape is - the sum of all the sides of the shape

4. Find the area of a rectangle with length 15 digits and width 10 digits by drawing unit squares or dots. Do not use a calculator.

5. Find the perimeter of a rectangle with length 7 digits and width 3 digits by drawing squares or dots. Do not use a calculator.

6. What is 35 divided by 12?

7. Calculate the area of a rectangle with length 8 cm and width 10 cm.

8. Calculate the perimeter of a rectangle with dimensions 9 cm and 5 cm.

9. Find the answer:

$$0.7 \times 0.4$$

$$0.44 \div 0.4$$

10. Imagine that you have a wooden toy box of length 30 cm and width 20 cm, and you have small, squared dice of side 3 cm. How many dice would you need to fill your wooden box to the top with dice?

11. What is the area of this rectangle? Show by counting and multiplication.



Can you also find its perimeter?

12. What is a floor map?

a) a map of the world with different countries

b) a map of the different parts of one floor of a house

c) a picture of the floor

13. Draw an example of a floor map of a house with one bedroom, one kitchen, living room, and bathroom.