

Advanced Geometry and Color Theory

Mathematics And Art · Answer Key · 10 Questions

1. Which shape is defined as a polygon with exactly six equal sides and six equal interior angles?

- A) Pentagon
- B) Heptagon
- C) Hexagon**
- D) Octagon

2. In the RYB color model used in primary school art, what is the result of mixing a primary color with its direct opposite secondary color?

- A) A tertiary color
- B) A shade of grey or brown**
- C) A brighter primary color
- D) A neutral tint

3. How many faces, vertices, and edges does a standard triangular prism possess?

- A) 5 faces, 6 vertices, 9 edges**
- B) 4 faces, 4 vertices, 6 edges
- C) 6 faces, 8 vertices, 12 edges
- D) 5 faces, 5 vertices, 8 edges

4. Which term describes the lightness or darkness of a color, independent of its hue?

- A) Saturation
- B) Intensity
- C) Value**
- D) Tint

5. A decagon is a polygon with how many interior angles?

- A) 8
- B) 10**
- C) 12
- D) 9

6. When light is refracted through a prism, which color of the visible spectrum has the longest wavelength?

- A) Violet
- B) Blue
- C) Green
- D) Red**

7. What is the geometric term for a quadrilateral where only one pair of opposite sides is parallel?

- A) Rhombus
- B) Trapezoid**
- C) Parallelogram
- D) Kite

8. Which color is produced by mixing equal parts of blue and yellow pigments?

- A) Purple
- B) Orange
- C) Green**
- D) Brown

9. How many degrees is the sum of the interior angles of a quadrilateral?

- A) 180 degrees
- B) 270 degrees
- C) 360 degrees**
- D) 540 degrees

10. Which of the following is considered an 'achromatic' color?

- A) Blue
- B) Black**
- C) Red
- D) Yellow