

Exploring Colors and Shapes in the World Around Us

Colors & Shapes · Answer Key · 24 Questions

1. Which color is the result of mixing red and green light?

- A) Blue
- B) Yellow**
- C) Cyan
- D) Magenta

2. In Euclidean geometry, what is the sum of the interior angles of a triangle?

- A) 90 degrees
- B) 180 degrees**
- C) 270 degrees
- D) 360 degrees

3. The phenomenon of 'color blindness' most commonly refers to an inability to distinguish between which two colors?

- A) Blue and yellow
- B) Red and green**
- C) Black and white
- D) Purple and orange

4. A polygon with five sides is known as a:

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

5. What is the approximate wavelength range for visible light?

- A) 10 nm to 400 nm
- B) 400 nm to 700 nm**
- C) 700 nm to 1000 nm
- D) 1000 nm to 1500 nm

6. Which geometric shape is defined by having four equal sides and four right angles?

- A) Rhombus
- B) Rectangle
- C) Parallelogram
- D) Square**

7. What is the psychological term for the study of color perception and how it affects human behavior and emotions?

- A) Chromatics
- B) Colorimetry
- C) Color Psychology**
- D) Optics

8. A shape with an infinite number of points equidistant from a central point is a:

- A) Oval
- B) Ellipse
- C) Circle**
- D) Sphere

9. The additive primary colors used in digital displays (like computer screens and TVs) are:

- A) Red, Yellow, Blue
- B) Red, Green, Blue**
- C) Cyan, Magenta, Yellow
- D) Black, White, Gray

10. What type of angle measures exactly 90 degrees?

- A) Acute angle
- B) Obtuse angle
- C) Straight angle
- D) Right angle**

11. The pigment primary colors typically used in painting are:

- A) Red, Green, Blue
- B) Cyan, Magenta, Yellow
- C) Red, Yellow, Blue**
- D) Orange, Purple, Green

12. A three-dimensional shape with six square faces is called a:

- A) Tetrahedron
- B) Pyramid
- C) Cube**
- D) Cylinder

13. In physics, the color of an object is determined by the wavelengths of light it:

- A) Absorbs
- B) Reflects**
- C) Diffracts
- D) Scatters

14. What is the term for a line segment that passes through the center of a circle and has endpoints on the circle?

- A) Radius
- B) Circumference
- C) Chord
- D) Diameter**

15. What is the common name for the color perceived when all wavelengths of visible light are present?

- A) Black
- B) Gray
- C) White**
- D) Brown

16. A shape formed by connecting three non-collinear points is a:

- A) Quadrilateral
- B) Triangle**
- C) Pentagon
- D) Hexagon

17. Which color is scientifically associated with warning signs and urgency?

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

18. What is the measure of the angle around a point in a flat plane?

- A) 90 degrees
- B) 180 degrees
- C) 270 degrees
- D) 360 degrees**

19. The subtractive primary colors, often used in printing, are:

- A) Red, Green, Blue
- B) Cyan, Magenta, Yellow**
- C) Red, Yellow, Blue
- D) Orange, Purple, Green

20. A polygon with eight sides is known as a:

- A) Heptagon
- B) Octagon**
- C) Nonagon
- D) Decagon

21. What is the opposite of black in terms of light absorption and reflection?

- A) Gray
- B) White**
- C) Clear
- D) Transparent

22. A geometric shape with a circular base and a single vertex is a:

- A) Cylinder
- B) Sphere
- C) Cone**
- D) Torus

23. What is the name for a hue that is neither warm nor cool, such as green or violet, often used in art and design?

- A) Monochromatic
- B) Analogous
- C) Complementary
- D) Neutral**

24. In mathematics, a shape with no edges or vertices, extending infinitely in all directions, is a:

- A) Line
- B) Plane**
- C) Point
- D) Ray