

Chapter2-Section 1-Plane Mirrors

1) If white light is reflected off a surface, which color of light has the greatest angle of the reflected ray?

- a) No light rays will reflect an opaque object.
- b) All wavelengths reflect at the same angle to the normal.
- c) Red will have the greatest angle because it has the longest wavelength.
- d) Violet will have the greatest angle because it has the shortest wavelength.

2) In diffuse reflection, why are the reflected rays not parallel to each other?

- a) because the light is of various wavelengths
- b) because the surface is not smooth
- c) because the incident rays are not parallel
- d) because they are only parallel when reflected off a plane mirror

3) A light ray strikes a plane mirror at an angle of 23° to the normal. What is the angle between the reflected ray and the mirror?

- a) 23°
- b) 67°
- c) 46°
- d) 134°

4) Match the following

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| Incident Ray | The imaginary line perpendicular to a surface at the location where light strikes the surface. |
| Reflected Ray | Parallel light rays reflect in parallel. |
| Normal | The light going <u>away</u> from the mirror |
| Law of Reflection | Reflected rays are not parallel. |
| Specular reflection | The angle that a reflected ray makes as measured from the normal to a reflective surface equals the angle that the incident ray makes as measured from the same normal. |
| Diffuse reflection | The light going <u>towards</u> the mirror |