Light: Shadows and Reflections

Standard difficulty · 20 questions · 40 marks · Time: 36 minutes

Name: _____ Date: _____ Score: ____ / 40

Show your working for Sections B and C. Answers are on the last page — try every question first!

Section A — Choose the correct answer — 8 × 1 = 8 marks

1. Objects that give out their own light are called:
(a) opaque **(b)** translucent **(c)** non-luminous **(d)** luminous

2. Which of these is LUMINOUS?
(a) a burning candle **(b)** the planet Venus
(c) a wall **(d)** a polished steel plate

3. Which of these is NON-LUMINOUS?
(a) a glowing bulb **(b)** a star **(c)** the Sun **(d)** a mirror

4. Which capital letter looks the SAME in a plane mirror?
(a) K **(b)** B **(c)** V **(d)** P

5. Frosted glass is:
(a) transparent **(b)** opaque **(c)** luminous **(d)** translucent

6. At one time of day, a 1 m stick casts a 6 m shadow. At the same time, how long is the shadow of a 6 m pole? (Shadows are in the same ratio as heights at the same time.)
(a) 36 m **(b)** 42 m **(c)** 12 m **(d)** 6 m

7. Light travels about 3 lakh (300,000) km every second. About how far does it travel in 6 seconds?
(a) 18,000,000 km **(b)** 300,006 km **(c)** 1,800,000 km **(d)** 180,000 km

8. You stand 12 m in front of a plane mirror. How far is your image from you?
(a) 14 m **(b)** 24 m **(c)** 12 m **(d)** 48 m

Section B — Short answer — 8 × 2 = 16 marks

9. What three things are needed to form a shadow?

10. Write "luminous" or "non-luminous": (a) the Moon (b) a glowing bulb

11. Does the capital letter look the same in a plane mirror? Write "yes" or "no": (a) F (b) M

12. Is it "transparent", "translucent" or "opaque"? (a) oiled paper (b) a wooden board

13. Is a pole's shadow "long" or "short" at (a) 12:30 p.m. (b) 8 a.m.?

14. At 4 p.m., a 5 m pole has a 20 m shadow. How long is the shadow of a 10 m tree at the same time?

15. A girl stands 8 m from a plane mirror and walks 5 m closer. How far is her image from her now?

16. How is light used in (a) an ambulance (b) shadow puppetry?

Section C — Word problems — 4 × 4 = 16 marks

17. Describe an activity to show that light travels in a straight line.

18. A 3 m stick's shadow was measured at 9 a.m., noon and 4 p.m.: 9 m, 1 m and 12 m. (a) When was it shortest, and why? (b) In which direction would the shadow point in the morning? (c) How much shorter was it at noon than at 9 a.m.?

19. The word TOY is held up to a plane mirror. (a) Will it read the same in the mirror? (b) Name the effect. (c) Write two other properties of an image in a plane mirror.

20. A torch shines on a brick wall, a wooden board, clear water in turn, in front of a wall. (a) Describe the shadow of each. (b) What happens to a shadow as the object is moved nearer the torch? (c) What three things are needed for a shadow?

Want another sheet on this chapter? In the Ambiful Worksheets app every sheet is new, with its answer key, and your child never gets the same question twice.

Scan the code to get the free app, or open **worksheets.ambiful.com/get**

Answer key

Light: Shadows and Reflections · AW-7S-LSR-2026-V1 · For parents — fold back or tear off before handing the sheet to your child.

Q	Answer	Working
1	**(d) luminous**	—
2	**(a) a burning candle**	—
3	**(d) a mirror**	—
4	**(c) V**	—
5	**(d) translucent**	—
6	**(a) 36 m**	6 × 6 = 36
7	**(c) 1,800,000 km**	300,000 × 6 = 1,800,000
8	**(b) 24 m**	12 + 12 = 24 (the image is as far behind the mirror as you are in front)
9	**A source of light, an opaque object and a screen.**	—
10	**(a) non-luminous (b) luminous**	—
11	**(a) no (b) yes**	—
12	**(a) translucent (b) opaque**	—
13	**(a) short (b) long**	—
14	**40 m**	each metre of height gives 4 m of shadow: 10 × 4
15	**6 m**	she is 3 m from the mirror; the image is as far behind: 2 × 3
16	**(a) its name is written laterally inverted for mirrors (b) opaque puppets block light to form shapes on a screen**	—
17	**Make holes in three cardboard pieces at the same height and line them up so a candle can be seen through all three. Move one card slightly to the side: the candle can no longer be seen, showing light travels in straight lines.**	—
18	**(a) At noon, when the Sun is highest. (b) Towards the west (away from the morning Sun in the east). (c) 8 m**	—
19	**(a) No: each letter looks the same, but their order is reversed, so it reads YOT (b) Lateral inversion (c) It is erect and the same size as the object (and as far behind the mirror as the object is in front).**	—
20	**(a) a brick wall: a dark shadow; a wooden board: a dark shadow; clear water: little or no shadow (b) It**	—

Q	Answer	Working
	becomes larger. (c) A light source, an opaque (or translucent) object and a screen.	