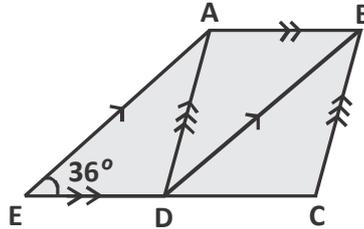
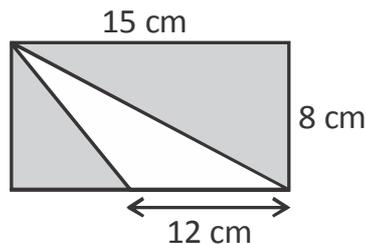


1. In the figure, ABCD is a rhombus and ABDE is a parallelogram.



Given that EDC is a straight line and $\angle AED = 36^\circ$, find $\angle BAD$.

- (A) 36° (B) 72° (C) 108° (D) 120°
2. What is the area of the shaded region ?



- (A) 48 cm^2 (B) 72 cm^2 (C) 120 cm^2 (D) 24 cm^2
3. If x and y are directly proportional, find the respective values of x_1 , x_2 and y_1 in the table given.

x	3	x_1	x_2	10
y	30	50	80	y_1

- (A) $x_1 = 8$; $x_2 = 2$; $y_1 = 100$ (B) $x_1 = 5$; $x_2 = 8$; $y_1 = 100$
 (C) $x_1 = 2$; $x_2 = 8$; $y_1 = 100$ (D) $x_1 = 5$, $x_2 = 8$, $y_1 = 120$

4. Which of the following statements is true ?

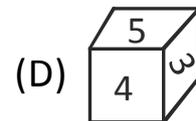
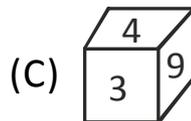
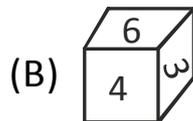
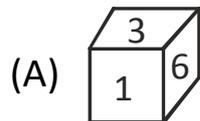
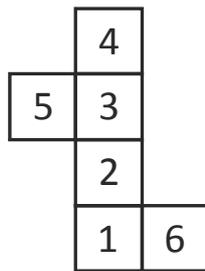
(A) $\frac{18}{35} \quad \frac{9}{7} \quad \frac{9}{7} \quad \frac{18}{35}$

(B) $\frac{2}{3} \quad \frac{3}{5} \quad \frac{1}{2} \quad \frac{2}{3} \quad \frac{3}{5} \quad \frac{1}{2}$

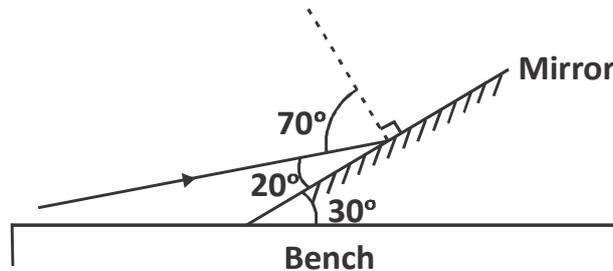
(C) $\frac{2}{3} \quad \frac{1}{5} \quad \frac{7}{15} \quad \frac{2}{3} \quad \frac{7}{15} \quad \frac{1}{5} \quad \frac{7}{15}$

(D) $\frac{3}{4} \quad \frac{27}{15} \quad \frac{12}{5} \quad \frac{3}{4} \quad \frac{27}{15} \quad \frac{12}{5}$

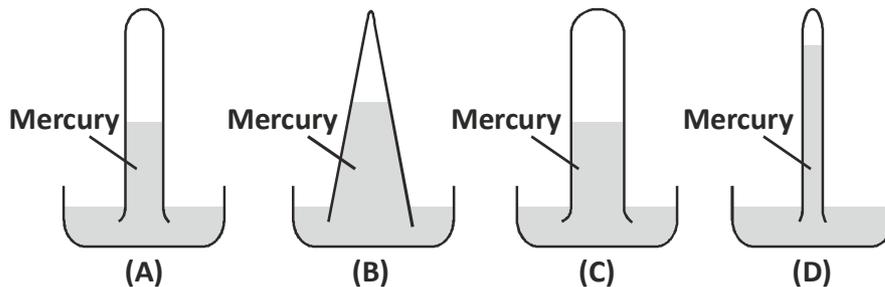
5. Which one of the following solids can be obtained by folding the given net ?



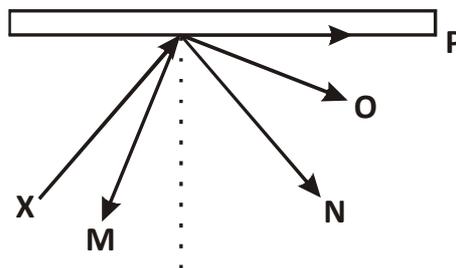
6. A plane mirror is inclined at 30° to the bench. A ray of light is directed so that it hits the mirror at an angle of 20° to the surface of the mirror. What is the angle of reflection ?



- (A) 20° (B) 40° (C) 65° (D) 70°
7. Which of the mercury barometers shown below indicate the highest air pressure ?

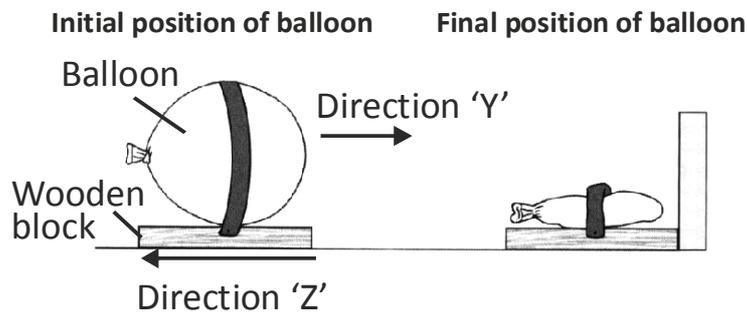


8. The given diagram shows the path of a light ray X, directed at a plane mirror.



- Which of the following is the correct reflected ray ?
- (A) M (B) N (C) O (D) P

9. **Observe the figures given below.**



Which statement is true ?

- (A) A push force is acting in direction Y.
 - (B) Frictional force is acting in direction Z.
 - (C) A magnetic force pulls the balloon in direction Y.
 - (D) Both (A) and (B)
10. **Four forces P, Q, R and S of different magnitudes were used to push the same object over the same type of surface over a distance. Based on the table given below, which force is of the higher magnitude ?**

	Force	Distance moved	Time taken
A.	P	130 cm	7 seconds
B.	Q	130 cm	13 seconds
C.	R	90 cm	7 seconds
D.	S	90 cm	13 seconds

11. Identify an incorrect statement.
- (A) CNG and LPG are clean fuels.
 - (B) Petroleum is refined in a petroleum refinery.
 - (C) Petroleum products are called petrochemicals.
 - (D) Coal does not cause any pollution when burnt.
12. Metal P reacts with water and dilute hydrochloric acid. Metal Q does not react with water but reacts with dilute hydrochloric acid. Metal R does not react with water and dilute hydrochloric acid. Which one shows their reactivity in a decreasing order ?
- (A) P, Q, R
 - (B) P, R, Q
 - (C) R, Q, P
 - (D) Q, R, P
13. Which of given statements is true ?
- (A) Carbon dioxide is used to extinguish fires involving oil and petrol.
 - (B) Water is not suitable for fires involving electrical equipments.
 - (C) Water is the best extinguisher for fires involving inflammable materials.
 - (D) Both (A) and (B).

14. A copper coin is kept immersed in a solution of silver nitrate for some time. What will happen to the coin and the colour of the solution ?

- (A) Silver metal will be deposited on the coin and solution will turn blue
- (B) Solution will remain colourless and coin will turn blue
- (C) Both solution and the coin will turn blue
- (D) Both solution and the coin will become colourless

15. Match the entries in Column I with those in Column II.

	Column - I		Column - II
(A)	Silk	(1)	Rope
(B)	Nylon	(2)	Sweater
(C)	Acrylic	(3)	Bottle
(D)	Plastic	(4)	Saree

- (A) A-1, B-3, C-4, D-2 (B) A-2, B-4, C-3, D-1
- (C) A-3, B-1, C-4, D-2 (D) A-4, B-1, C-2, D-3

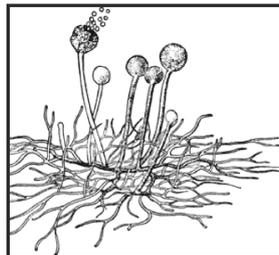
16. Identify the suitable term based on the given information.

The cultivation and breeding of animals, plants and fungi for food, fiber, biofuel and other products used to sustain and enhance human life.

- (A) Biosphere (B) Agriculture
(C) Sanctuary (D) National park
17. The characteristics given below belong to :

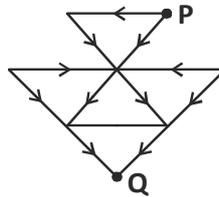
Five-part body plan
Radial symmetry
Spiny outer covering

- (A) Mollusca (B) Echinodermata
(C) Annelids (D) Arthropoda
18. The organisms given below reproduces by



- (A) fission. (B) fusion.
(C) spores. (D) conjugation.

21. A situation/statement is given below followed by four options. Choose the best reason.
If your father differs with you
 (A) you should hold back your ideas and obey him.
 (B) you should leave the place.
 (C) you should put forward your point of view and discuss with him the pros and cons of the case.
 (D) you should ask your mother to favour you.
22. Following the arrows given in the diagram, how many different routes are there from P to Q ?



- (A) 4 (B) 6 (C) 8 (D) 9
23. Arrange the following words in a logical sequence.

1. Gold 2. Iron 3. Sand 4. Platinum 5. Diamond

- (A) 2, 4, 3, 5, 1 (B) 3, 2, 1, 5, 4
 (C) 4, 5, 1, 3, 2 (D) 5, 4, 3, 2, 1
24. 1 cut of a circle divides it into 2 parts. 2 cuts of a circle divides it into at most 4 parts. Then 4 cuts of a circle divides it into at most how many parts ?
 (A) 11 (B) 9 (C) 10 (D) 12
25. A 66 - seater bus picks up a passenger at the 1st bus stop, 2 passengers at the 2nd one, 3 passengers at the 3rd bus stop and so on. At what stop will all the seats be filled ?
 (A) 9th (B) 10th (C) 8th (D) 11th