

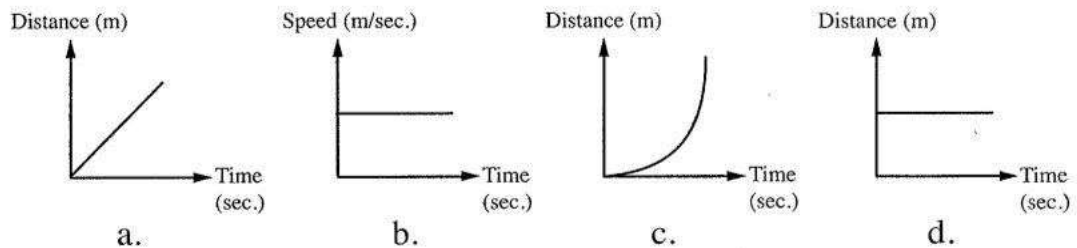
الاجابات نهاية الصفحة

Choose the correct answer :

1. A person stands in front of a plane mirror at a distance of 3 meter, so between him and his image is..... meter.

- a. 3
- b. 4
- c. 5
- d. 6

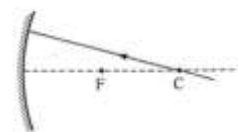
2. Which of the following graphs describes the movement of an object moves with acceleration?.....



3. In the opposite figure :

The value of angle of reflection for the incident light ray is

- a. 90°
- b. 45°
- c. 0°
- d. 30°



4. If the cell of muscles in a female rabbit contains 22 pairs of chromosomes, so the number of chromosomes in one cell of its ovary equal.

- a. 11
- b. 22
- c. 44
- d. 88

5. The scientists believe that the universe emerged from massive explosion and it is in.....

- a. continues contraction.
- b. contraction then expansion.
- c. expansion then contraction.
- d. continues expansion.

B A speed of a car increased from 10 m/sec to 20 m/sec during 5 seconds, at the same time a bike started movement from rest and its speed reached 10 m/sec. Which one of them moved at a greater acceleration ?

C Write the name of this phase, and mention :

- 1. When this phase happens?
- 2. Why the cell passes through this phase?



Question 2

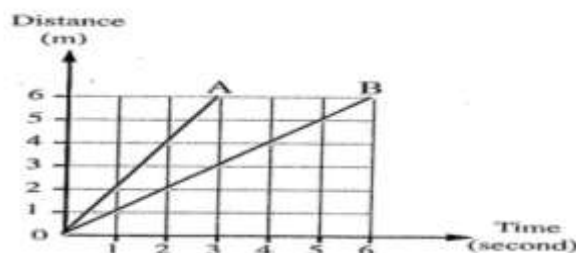
A Write the scientific term for each of the following:

1. The mass of cells which result from the abnormal cell when it is continually divided without controlling.
2. Biological process where the living organism produces new individuals of the same kind and thus, ensuring its continuity.
3. It is the speed of a moving object relative to a constant or a moving observer.
4. It is a very thin plastic lenses and can stick to the eye cornea.
5. It is the regular speed by which the object moves to cover the same distance at the same period of time.
6. A mirror whose reflecting surface is the outer surface of a sphere and diverges the light rays.

B For which type of celestial bodies, each of the following belongs :

1. The Earth.
2. The Milky Way.

C The opposite graph represents the (distance time) graph for the movement of two objects A, B From the graph, answer the following:



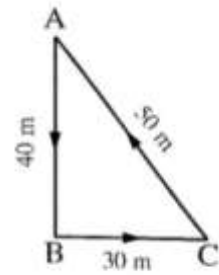
1. What is the kind of speed of the two objects?
2. Calculate the ratio between the speed of object A and the speed of object B

Question 3

A Complete the following sentences:

1. Galaxies began to form after..... years after the Big Bang.
2. From the examples of the multicellular organisms reproduced by budding is.....
3. The point that lies in the middle of the reflecting surface of the concave mirror is called.....
4. The displacement covered by a body in one second is called.....

5. In the opposite figure :



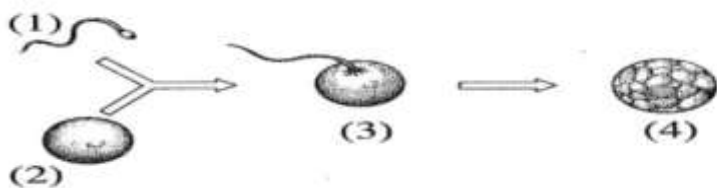
A body starts its motion from point (A) to point (B), then to point (C), then returned to point (A), so the displacement covered equals metre.

B When the following cases happen ... ?

1. The distance covered by an object equals the magnitude (amount of) displacement happened.
2. Formation of a real, inverted and equal image for an object that is placed in front of a concave mirror.

C The opposite figure represents one of the important process to complete the reproduction.

Answer the following:



1. What is the name of the process that number (3) refers to and what is the name of the produced cell?
2. What is the importance of forming the cell number (3) ?
3. What is the kind of division in part (4) ?
4. What is the number of chromosomes in the cell number (1)?

Question 4

A Give reasons for :

1. The short-sightedness is corrected using a concave lens.
2. Mass is a scalar quantity, while force is a vector quantity.
3. The word "AMBULANCE" is written laterally inverted way on the ambulance car.
4. No harmful effect happens for the donor person in liver transplantation.

B What are the results of...?

1. The gaseous cloud subjected to cooling and contraction processes "In Fred Hoyle theory".
2. The Euglena cell divided by three successive mitosis divisions.
3. The exchange of genes between two homologous chromosome's chromatids.

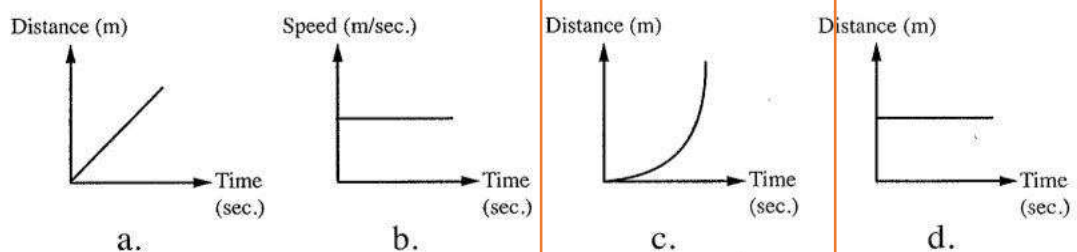
C An object is placed at a distance of 5 cm from a convex lens its focal length is 3 cm. Show by drawing the position of the formed image and mention the properties of this image, by drawing two light rays only.

Choose the correct answer :

1. A person stands in front of a plane mirror at a distance of 3 meter, so between him and his image is..... meter.

- a. 3
- b. 4
- c. 5
- d. **6**

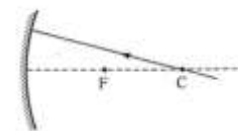
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4. If the cell of muscles in a female rabbit contains 22 pairs of chromosomes, so the number of chromosomes in one cell of its ovary equal.

- a. 11

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5. The scientists believe that the universe emerged from massive explosion and it is in.....

- a. continues contraction.
- b. contraction then expansion.
- c. expansion then contraction.
- d. **continues expansion.**

B A speed of a car increased from 10 m/sec to 20 m/sec during 5 seconds, at the same time a bike started movement from rest and its speed reached 10 m/sec. Which one of them moved at a greater acceleration ?

$$a(\text{ of a car}) = v_2 - v_1 / t = 20 - 10 / 5 = 2 \text{ m/sec}^2$$

$$a(\text{ of a bike}) = v_2 - v_1 / t = 10 - 0 / 5 = 2 \text{ m/sec}^2$$

-The acceleration of the car equal (a) of the bike.

C Write the name of this phase, and mention :

- 1. When this phase happens? **The name of the phase is interphase.**

-It happens before cell division



- 1. Why the cell passes through this phase?

To prepare the cell by some important biological process, and duplicating the amount of genetic material

Question 2

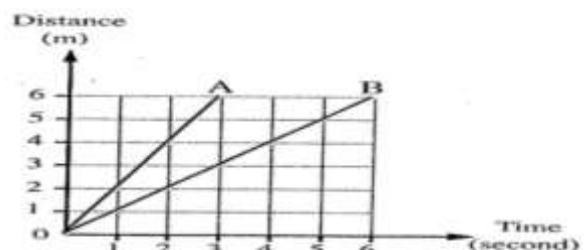
A Write the scientific term for each of the following:

1. The mass of cells which result from the abnormal cell when it is continually divided without controlling. **Tumor**
2. Biological process where the living organism produces new individuals of the same kind and thus, ensuring its continuity. **Reproduction**
3. It is the speed of a moving object relative to a constant or a moving observer. **Relative speed**
4. It is a very thin plastic lenses and can stick to the eye cornea. **contact lens.**
5. It is the regular speed by which the object moves to cover the same distance at the same period of time. **Average speed**
6. A mirror whose reflecting surface is the outer surface of a sphere and diverges the light rays. **convex mirror**

B For which type of celestial bodies, each of the following belongs :

1. The Earth. **A planet**
2. The Milky Way. **A galaxy**

C The opposite graph represents the (distance time) graph for the movement of two objects A, B From the graph, answer the following:



1. What is the kind of speed of the two objects? **Both objects move with a regular speed**

2. Calculate the ratio between the speed of object A and the speed of object B

$$v \text{ (of object A)} = 4/2 = 2 \text{ m/sec}$$

$$V(A) : V(B) = 2 : 1$$

Question 3

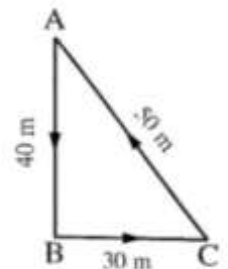
A Complete the following sentences:

- Galaxies began to form after.... **3000 million** years after the Big Bang.
- From the examples of the multicellular organisms reproduced by budding is... **Hydra** ..
- The point that lies in the middle of the reflecting surface of the concave mirror is called.... **The pole of the mirror** .
- The displacement covered by a body in one second is called.... **Velocity**

5. In the opposite figure :

A body starts its motion from point (A) to point (B), then to point (C), then returned to point (A), so the displacement covered equals meter.

zero



B When the following cases happen ... ?

- The distance covered by an object equals the magnitude (amount of) displacement happened.

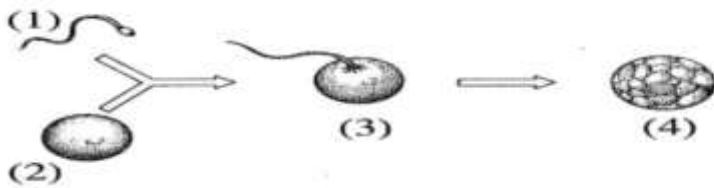
when the object moves in a straight line in One direction

- Formation of a real, inverted and equal image for an object that is placed in front of a concave mirror.

when the object is placed at the centre of curvature of the concave mirror.

C The opposite figure represents one of the important process to complete the reproduction.

Answer the following:



1. What is the name of the process that number (3) refers to and what is the name of the produced cell? **1- Fertilization - zygote**
2. What is the importance of forming the cell number (3) ? **The zygote contains the whole Number of chromosomes which present in its species, and also is genetic traits come from 2 sources.**
3. What is the kind of division in part (4) ? **Mitosis division.**
4. What is the number of chromosomes in the cell number (1)? **N**

Question 4

A Give reasons for :

1. The short-sightedness is corrected using a concave lens. **Because it diverges the light rays before Falling on the eye lens, so the image of the object comes back until it formed exactly On the retina**
2. Mass is a scalar quantity, while force is a vector quantity. **Because its enough to know the magnitude only to identify the mass, while force is identified by knowing its magnitude and direction.**
3. The word "AMBULANCE" is written laterally inverted way on the ambulance car. **Because the mirror present in cars in front of**

ambulance car form Literally inverted image of this word, so it's appears to the diverse Literally corrected and so it can be read easily

4. No harmful effect happens for the donor person in liver transplantation.

Because the cells of the remaining part car divided mitotically to compensate the missing Part

B What are the results of...?

1. The gaseous cloud subjected to cooling and contraction processes "In Fred Hoyle theory". **The Formation of 8 planet that revolve around the sun.**

2. The Euglena cell divided by three successive mitosis divisions. **Eight identical cells are produced.**

2. The exchange of genes between two homologous chromosome's chromatids.

The variation of the genetic traits among the individuals of the same Species

C An object is placed at a distance of 5 cm from a convex lens its focal length is 3 cm. Show by drawing the position of the formed image and mention the properties of this image, by drawing two light rays only.

**The prop's of the formed image:
real, inverted and magnified.**

