

BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI-110034



CRITICAL THINKING

CLASSES – IX and X

SERIAL NO. 3

Q 1.



A sequence of numbers such that the difference between the consecutive terms is constant is.....

DECODING MESSAGE



Instruction : Solve the problems given below and write corresponding letter in the code below to unlock the new word

P	Ordinate of origin
C	Distance of point (-5, 7) from y axis
I	The value of K if $x = 2, y = 1$ is a solution, of the equation $2x + 3y - k = 0$
N	Abscissa of Point where line $2x+y=8$ intersect x axis
S	$(6 + 12 \div 3) - 7$

O		Number of squares
H	Fill in the blank to complete the pattern: 5, 9, 15, 23, 33, 45 ,.....	
P	If the two points are A (-3,7) and B (-7, -5), then what is (abscissa A)-(Ordinate B)	
M	$(-1)^3 + (4)^3 + (-3)^3$ is equal to	
R	The sum of ages of some children is y. After 7years, the sum of their ages become $y+56$. What should be the number of children	
T	Ordinate of (9, - 5)	
E	Number of possible triangles 	
A	Zero of $(2x-12)$	
G	40, 39, 37, 34, 30,	

6	8	7	-5	59	36	15	-5	7	5		0	8	30	25	8	15	3	3	7	30	4	

Question 2:

Find the value for each icon using box method given that the sum of all four boxes is 117.



3



$100 \div 2$	
40	

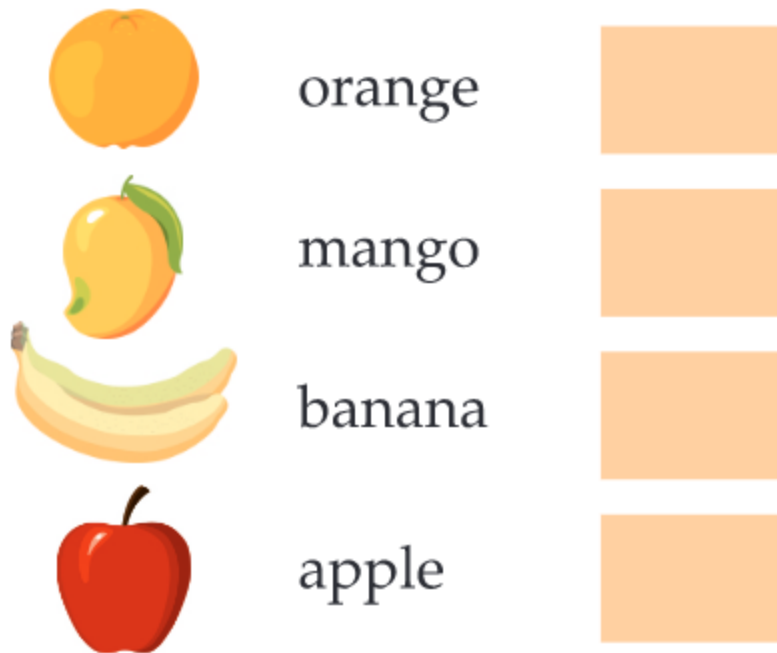


-1



orange





Q3.

Read the newspaper article and answer the questions that follow.

A copying machine for living beings?

Without any doubt, if there had been elections for the animal of the year 1997, Dolly would have been the winner! Dolly is a Scottish sheep that you see in the photo. But Dolly is not just a simple sheep. She is a clone of another sheep. A clone means: a copy. Cloning means copying 'from a single master copy'. Scientists succeeded in creating a sheep (Dolly) that is identical to a sheep that functioned as a 'master copy'.

It was the Scottish scientist Ian Wilmut who designed the 'copying machine' for sheep. He took a very small piece from the udder of an adult sheep (sheep

- 1) From that small piece he removed the nucleus, then he transferred the nucleus into the egg-cell of another (female) sheep (sheep
- 2) But first he removed from that egg-cell all the material that would have determined sheep 2 characteristics in a lamb produced from that egg-cell. Ian Wilmut implanted the manipulated egg-cell of sheep 2 into yet another (female) sheep (sheep
- 3) Sheep 3 became pregnant and had a lamb: Dolly.

Some scientists think that within a few years it will be possible to clone people as well. But many governments have already decided to forbid cloning of people by law.

I. Which sheep is Dolly identical to?

- a) Sheep 1
- b) Sheep 2
- c) Sheep 3
- d) Dolly's father

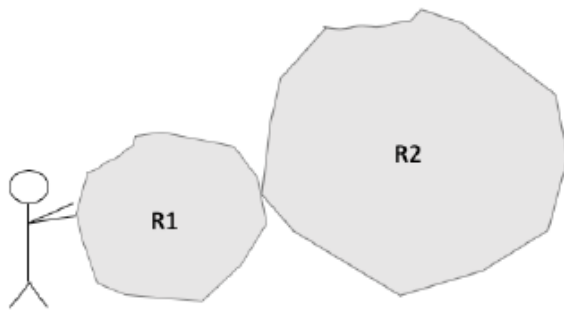
II. In line 7 the part of the udder that was used is described as "a very small piece". From the article text you can work out what is meant by "a very small piece".

- a) A cell.
- b) A gene.
- c) a nucleus
- d) a chromosome

III. Many governments have already decided to forbid cloning of people by law. Do you support this statement?

Q 4.

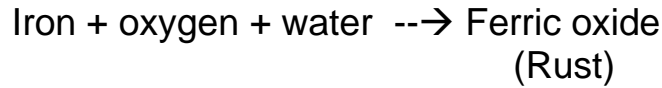
A person pushes a rock, R1, to the right while pushing another rock, R2, that is heavier than R1. The total mass of R2 is three times the total mass of R1. If the person is pushing with enough force that the two rocks accelerate to the right, what can be said for sure about the magnitudes of the forces on the rocks?



- (a) The force on R2 exerted by R1 is larger in magnitude than the force on R1 exerted by R2
- (b) The force on Cart 2 exerted by Cart 1 is smaller in magnitude than the force on Cart 1 exerted by Cart 2.
- (c) The force on Cart 2 exerted by Cart 1 is equal in magnitude to the force on Cart 1 exerted by Cart 2
- (d) The force on Cart 2 exerted by Cart 1 could be larger or smaller depending on the size of the acceleration.

Q 5.

Given below is the chemical reaction that happens when iron rusts.



In which of the following case(s) would the iron nail rust when left for a few days?

- i) an iron nail lying in a garden
- ii) an iron nail lying at the bottom of a pond
- iii) an iron nail lying in a bottle of refined oil
- iv) an iron nail in a cylinder having only pure oxygen and nothing else.

Select the correct answer.

- a) Only (i)
- b) Only (ii)
- c) Only (i) and (ii)
- d) Only (iii)

प्रश्न -6

जो शब्द पर्यायवाची नहीं है, उन्हें छाँटकर अलग लिखिए।

क) दास - नौकर, अनुचर, अंशु

ख) बुद्धि - मति, विवेक, क्षीर

ग) उत्सव - त्योहार, समर, समारोह

घ) किनारा - तीर, तट, तात

प्रश्न -7

सही पर्यायवाची शब्दों के जोड़े मिलाइए।

रण	धन
करवाल	समर
सुर	तलवार
कामना	तट
किनारा	इच्छा
अर्थ	देवता

प्रश्न - 8

एक व्यक्ति अपने कार्यालय के लिए उत्तर दिशा की ओर चलता है । वह बायीं ओर घूमा ओर फिर दाईं ओर घूमा ओर फिर दाईं ओर घूमा । वह किस दिशा की ओर मुँह करके चल रहा है ?

प्रश्न -9

दया का एक भाई अनिल है । दया ,चंदा का पुत्र है । राहुल ,चंदा के पिता है। रिश्ते में अनिल ,राहुल का क्या लगता है ?