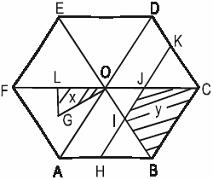
**Cat Mock Test Series 2**

Each root of the equation  ax^3 - 7x^2 + cx + 231 = 0 is an integer. One of the roots is  - \cfrac{1}{2} sum of the other two roots. What is the sum of all the possible values of a?

|  |
| --- |
|  |
|  | 17 |
|  | -7 |
|  | -17 |
|  | None of these |

In the figure given below, ABCDEF is a regular hexagon whose diagonals intersect at point O. G is the centroid of triangle AOF and L is the midpoint of FO. The line segment HK joins the midpoints of AB and CD. Find the ratio of the shaded area marked ‘x’ to the shaded area marked ‘y’.  
  


|  |
| --- |
|  |
|  | 3 : 7 |
|  | 2 : 9 |
|  | 2 : 5 |
|  | 3 : 11 |

M = \sqrt{3- \sqrt{5} + \sqrt{9 - 4 \sqrt{5}}}and N = \sqrt{\sqrt{7} - 1 - \sqrt{11 - 4 \sqrt7}}. What is the value of  \cfrac{M - N}{M + N}? 

|  |
| --- |
|  |
|  | 0 |
|  | 1 |
|  | - 1 |
|  | None of these |

P + \cfrac{1}{Q} = Q + \cfrac{1}{R} = 1where P, Q and R are real numbers. What is the value of PQR + R +  \cfrac{1}{P}? 

|  |
| --- |
|  |
|  | –2 |
|  | –1 |
|  | 0 |
|  | Cannot be determined |

Anant purchased x chocolates for Rs. y, where y is a natural number. The shopkeeper had offered to give him x+10 chocolates for Rs. 2. Anant declined the offer though it would have resulted in a saving of 80 paise per dozen chocolates for him. Which of the following can be the number of chocolates purchased by Anant?

|  |
| --- |
|  |
|  | 1 |
|  | 3 |
|  | 5 |
|  | 15 |

There are two boxes – I and II. Each contains balls of two colours – White and Black. A ball is selected at random. It is known that  P(W\ \cap\ I) = 0.3 and P(B’|II) = 0.8, where W, B, I and II represent the events White ball selected, Black ball selected, ball selected from Box I and ball selected from Box II respectively. Find P(I|B).

|  |
| --- |
|  |
|  | \cfrac{2}{3} |
|  | \cfrac{1}{3} |
|  | \cfrac{1}{2} |
|  | \cfrac{3}{4} |

N is a five-digit perfect square whose unit digit is same as the tens digit. How many such N are there?

|  |
| --- |
|  |
|  | 31 |
|  | 30 |
|  | 33 |
|  | 32 |

N = 70! × 69! × 68! × ….. 3! × 2! × 1! Which of the following represents the 147th digit from the right end of N?

|  |
| --- |
|  |
|  | 2 |
|  | 0 |
|  | 5 |
|  | 7 |

If n =  \cfrac{a}{b + c}\ +\  \cfrac{b}{c+a}+ \cfrac{c}{a+b}, where a, b and c are the three sides of a triangle, then which of the following best describes the range in which n lies?

|  |
| --- |
|  |
|  | \bigg[ \cfrac{3}{2},\ 2 \bigg) |
|  | \bigg( \cfrac{2}{3},\cfrac{3}{2} \bigg) |
|  | \bigg( 1,\cfrac{5}{2} \bigg] |
|  | \bigg( \cfrac{4}{3},\cfrac{5}{3} \bigg) |

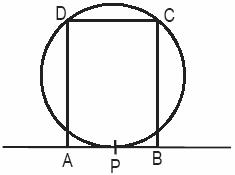
P and Q are two points 100 km apart. A starts running from P towards Q at 10 km/hr. B starts running from Q at exactly the same time and in the same direction as that of A at 20 km/hr. After an hour, B turns back and changes his speed to 10 km/hr. After another hour, B again turns back and changes his speed to 20 km/hr. He keeps on changing his speed and direction in this manner till the time he meets A. After how much time will A and B meet for the first time?

|  |
| --- |
|  |
|  | 30 hours |
|  | 18 hours |
|  | 10 hours |
|  | 20 hours |

A 3-digit natural number ‘abc’, where a, b and c are distinct digits, when increased by 33.33% becomes ‘cab’. When ‘cab’ is increased by 33.33% it becomes ‘bca’. How many such numbers are there?

|  |
| --- |
|  |
|  | 0 |
|  | 1 |
|  | 2 |
|  | 5 |

In the figure given below, a tangent is drawn at point P on a circle of radius 1 cm. A and B are two points on the tangent and ABCD is a rectangle, where C and D are two points on the circumference of the circle. What is the approximate area  (in \ cm^2) of the rectangle ABCD if 2AB = BC?



|  |
| --- |
|  |
|  | 1.77 |
|  | 1.50 |
|  | 1.83 |
|  | 1.60 |

In how many ways can 18 identical balls be distributed among 3 identical boxes?

|  |
| --- |
|  |
|  | 25 |
|  | 210 |
|  | 105 |
|  | 37 |

One hundred ml of alcohol is mixed with y ml of water. Forty ml of this alcohol-water mixture is added to 2y ml of another alcohol-water mixture whose alcohol concentration is 26%. If the percentage of water in the resultant mixture is 2y%, then what is the value of y?

|  |
| --- |
|  |
|  | 30 |
|  | 40 |
|  | 20 |
|  | 25 |

If a and b are real numbers such that  {}_aa^b = b and  a \ne b , then what is the value of  a^b - b? 

|  |
| --- |
|  |
|  | –1 |
|  | 0 |
|  | 1 |
|  | 2 |

A function f(x) is defined for all real values of x as f(x) =  \cfrac{X - 1}{X + 1} . If  y_1 = f(x),  y_2 = f(f(x)),  y_3 = f(f(f(x))) and so on, then what is the value of  y_{501}? 

|  |
| --- |
|  |
|  | \cfrac{-1}{X} |
|  | \cfrac{X + 1}{X - 1} |
|  | 501x – 1 |
|  | \cfrac{X - 1}{X + 1} |

What is the equation of the straight line which passes through the point of intersection of the straight lines 3x + 4y – 11 = 0 and x + y – 3 = 0 and is parallel to the line 2x + 5y = 0?

|  |
| --- |
|  |
|  | 5x – 2y – 12 = 0 |
|  | 2x + 5y – 12 = 0 |
|  | 2x + 5y – 9 = 0 |
|  | 5x + 2y – 9 = 0 |

If a and b are integers such that  log_2 (a+b) +  log_2 (a?b)=3, then how many different pairs (a, b) are possible?

|  |
| --- |
|  |
|  | 0 |
|  | 1 |
|  | 2 |
|  | 3 |

A cylindrical pipe of length 75 m, through which water flows at the rate of 54 km/hr, can fill 80% of a cuboidal tank of 118800  m^3 capacity in 14 hours. What is the radius (in cm) of the cross section of the pipe?

|  |
| --- |
|  |
|  | 20 |
|  | 25 |
|  | 50 |
|  | Cannot be determined |

A large cube is formed by bringing together 729 smaller identical cubes. Each face of the larger cube is painted with red colour. How many smaller cubes are there none of whose faces is painted?

|  |
| --- |
|  |
|  | 216 |
|  | 256 |
|  | 343 |
|  | None of these |

**Directions for next three questions:** The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.  
  
Don’t shoot the messenger is usually a good rule to live by. But it is hard when it comes to Bernie Madoff, the former billionaire serving a 150-year jail term for running history’s biggest Ponzi scheme.  
  
Yet, in recent jailhouse interviews, Madoff has given a valuable insight into causes of the Great Recession, whose awful impact has blighted millions of lives across America and around the world. No one can deny Madoff’s activities were an appalling fraud, but, he insists, what about the involvement of everyone else in the global financial system.  
  
“They had to know,” Madoff told the New York Times, referring to the banks and hedge funds that greedily reaped millions in fees from his operations. He pointed out to New York magazine that he refused to give the banks any information as to how he got such high returns and would not let them do due diligence. Yet they never complained.  
  
“These banks and these funds had to know there were problems,” he said.  
  
No wonder that Irving Picard, the trustee representing Madoff’s victims, has filed a civil suit seeking damages from banks who did business with Madoff. They include big Wall Street names like HSBC, Citigroup, JP Morgan and Merrill Lynch. Just because Madoff is a crook sitting in jail does not mean he isn’t right when he tells us to look elsewhere, too.  
  
Yet, unfortunately, Madoff is the only one behind bars.  
  
That is the worst thing about the whole sorry saga. Madoff and his scheme have become a useful foil for the entire finance industry – and a distraction from its venality. It’s always Madoff that the tabloids put on the front pages. It’s Madoff who is the ultimate banking bogey man. It’s Madoff who spurs public outrage and whose jailing has satiated a quest for justice. It is the classic “one bad apple” defence of the kind banks and Wall Street specialise in. It is not the system’s or the bosses’ fault, they say, it is just a few rogue operators and they have been dealt with.  
  
But we should not be fooled. We should listen to Madoff when he fingers the whole financial sector and the giant firms within it as part of the problem, too. He told New York magazine:  
  
“It’s unbelievable … no one has has any criminal convictions. The whole new regulatory reform is a joke.” He’s not alone in being amazed that, despite the astonishing frauds and manipulations by Wall Street during the boom years, not one top banking or hedge fund executive sits in jail. It is indeed jaw-dropping.  
  
Which of these can be inferred as the ‘insight’ given by Madoff?

|  |
| --- |
|  |
|  | The Recession was caused by a few rogue operators. |
|  | The Recession was caused by the failure of the banks and financial organizations. |
|  | The Recession was caused by the venality of the finance industry. |
|  | The Recession was caused, in part, by the actions of the banking and financial industry. |

Why does the author call Madoff the ultimate banking bogeyman?

|  |
| --- |
|  |
|  | Madoff has come to represent the wrongs committed by the banking industry. |
|  | Madoff has come to represent the type of agent that caused the recession. |
|  | Madoff’s actions were like those of a bogeyman. |
|  | Madoff was to blame for the banking industry losing millions. |

Which one of these would be the best title for the passage?

|  |
| --- |
|  |
|  | Bernie Madoff – The new banking poster boy |
|  | Beyond Madoff – Who else is to blame for the Recession? |
|  | How did Bernie Madoff cause the Recession? |
|  | How did the financial sector contribute to the Recession? |

**Directions for next two questions:** The passage given below is followed by a set of two questions. Choose the most appropriate answer to each question.  
  
The British monarch, Elizabeth II, in a green dress and leprechaun hat daintily sipping a glass of Guinness through a straw would have been a most fantastic depiction anytime in her past 59-year reign. But on Wednesday a cartoon in London’s Independent came close to reality, excepting perhaps the frothy beer mug dancing in the air. For the first time in a century, ever since her grandfather, George V, crossed the Irish Sea, a reigning British monarch has set foot on Ireland. That absence of a hundred years puts into relief the bloodshed, bitter enmity and mistrust that have marked Anglo-Irish relations and cleaved the two nations all along. As a foil, her presence has been invested, not very surprising for Dublin, by a high degree of symbolism — some real, some exaggerated. The real: the queen’s laying of the wreath at the Garden of Remembrance to honour the Irish patriots who fought against the British. The exaggerated: her green cloak to go with the Emerald Isle.  
  
The queen’s visit is meant to symbolise more than anything else an acknowledgment that history should not be allowed to stand in the way of the future; that the two nations have come a long way since the Easter Rising and the Irish War of Independence and the many fraught years since. While Sinn Fein’s black balloons, the largely deserted streets and the heavy security presence reminded that history could not be too easily wished away, the queen took the first step towards a new rapprochement between the old adversaries. A year ago, British Prime Minister David Cameron had already apologised for the Bloody Sunday of 1972.  
  
As Stephen said in Ulysses, “History is a nightmare from which I am trying to awake.” That is quite like what the British and the Irish are trying to do.  
  
Which of the following can be inferred from the passage?  
  
I. Relations between England and Ireland are cordial now.  
  
II. Both Irish and British have been making efforts to ease the tension between the two nations.  
  
III. The queen had chosen her attire to match Irish colours.

|  |
| --- |
|  |
|  | Only I |
|  | II and III |
|  | I and II |
|  | None of the above |

**Directions for next two questions:** The passage given below is followed by a set of two questions. Choose the most appropriate answer to each question.  
  
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III. The queen had chosen her attire to match Irish colours.

|  |
| --- |
|  |
|  | Only I |
|  | II and III |
|  | I and II |
|  | None of the above |

How is the quote from Ulysses relevant to Britain and Ireland?

|  |
| --- |
|  |
|  | After years of conflict between Britain and Ireland, efforts are being made to resolve issues. |
|  | After years of shared misfortune, Britain and Ireland are trying to make amends. |
|  | Both Britain and Ireland have a tragic past that they are trying to recover from. |
|  | Britain and Ireland have had bitter enmity and mistrust toward each other but that is now a thing of the past. |

**Directions for next four questions:** The passage given below is followed by a set of four questions. Choose the most appropriate answer to each question.  
  
But I wonder how much real attention Dickens’s books will get. In America at least, he seems to be an author more known than read. (Find me someone who claims to have read “Martin Chuzzlewit” and I will show you a goddamned liar.) Yet even if you’ve read only one of his books, his stamp is such that it feels like you’ve read them all. The virtues that kept him famous, prosperous and never out of print—that he is easily grasped and eternally inventive in his visuals and jokes—have served to make him iconic. His characters, of course, deserve most of the credit. They possess those funny allegorical names, behave just as fixedly, and get thrown into one melodramatic scene after another. But taken as a whole, those 989 characters make up an unforgettable universe of humanity matched only by Shakespeare, whom Dickens worshipped.  
  
George Orwell, in his famous essay on Dickens, pegged the novelist as a cynic who was neither a radical nor an idle bourgeois, but a self-made mystery who unswervingly championed the underdog, typically the working poor. He went on to assert that Dickens’s reticence to take a definitive position on class and rights carried over to his characters, who tend to feel unreal. While Orwell claimed he could conduct a conversation with a chap like Leopold Bloom, he held that he couldn’t imagine one with any of the folks imagined by Dickens.  
  
The Orwell essay is a long one and is interesting because there is a palpable tension between his obvious love for Dickens and his need to bring a clear, socialist critique to the table, if for no other reason than to prevent Dickens from being ‘stolen’ by others with their own specious agendas. For example, Orwell couldn’t say enough about how amazing Dickens was in writing the way children think, but on the other hand it rankles him that Dickens never talks about actual work and what people do when they’re not standing around in some literary scene.  
  
But despite persistent and, to my mind, niggling quarrels that Orwell picks with Dickens, he couldn’t bring himself to condemn him. He went on to concede that he couldn’t imagine a day when he wouldn’t be reminded of a particular Dickensian scene or moment. It is this aspect of Dickens, the sheer scope of the world he created and the widescreen variety of his novels, that is his true legacy. Yes, his novels are of a piece, but when you fit the jigsaw together it’s a remarkable picture, whirling and alive. Its intricacies and moving parts far outweighing the surprise coincidences, occasional mawkishness and deus ex machina endings.  
  
Which of these best expresses the central theme of the passage?

|  |
| --- |
|  |
|  | The passage explores why Dickens is an important author and will always be read. |
|  | The author wants to argue that despite some weaknesses Dickens as a writer is second only to Shakespeare. |
|  | The passage captures the universal legacy of Dickens’ writings. |
|  | The passage captures the author’s analysis of a George Orwell essay on Dickens. |

All of the following are criticisms of Dickens’ novels except:  
  
I. Dickens’ novels feature characters that have funny allegorical names.  
  
II. Dickens is too sentimental at times.  
  
III. Dickens’ characters’ opinion on class and rights is not clear which makes them feel unreal.  
  
IV. Dickens’ novels feature surprising coincidences.

|  |
| --- |
|  |
|  | Only I |
|  | I and III |
|  | II and IV |
|  | II, III and IV |

According to author, what is the most important feature of Dickens’ writings?

|  |
| --- |
|  |
|  | The fact that his writing is easily understood by everybody. |
|  | The whimsical characters that he created. |
|  | The inventive visuals and jokes. |
|  | The complete range and variety of his writing |

Which of the following best describes the tone of the passage?

|  |
| --- |
|  |
|  | Analytical |
|  | Pedantic |
|  | Descriptive |
|  | Nostalgic |

The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is incorrect or inappropriate.  
  
**THROW**

|  |
| --- |
|  |
|  | When I bought my motorbike, they threw in free insurance. |
|  | He loves the new project and has thrown himself into it with great gusto. |
|  | Shah Rukh Khan has not been able to throw off the romantic hero image. |
|  | We’re not going to throw the towel just because we lost one game. |

The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is incorrect or inappropriate.  
  
**SIT**

|  |
| --- |
|  |
|  | My partner just sits and expects things to get done. |
|  | I was new to the job, so I sat in on the meetings to learn the procedures. |
|  | He had to sit out most of the matches due to injury. |
|  | He sat on many committees dealing with environmental issues |

Given below are a few sentences. Identify the sentence(s)/ part(s) of the sentence(s) that is/are correct in terms of grammar and usage (including spelling, punctuation and logical consistency). Then choose the most appropriate option.   
  
(A) Many a men dated their ruin from some murder or other that perhaps they thought little of at the time.  
  
(B) Afterwards, when fascinated by the man, as you will be, turn immediately to this excellent, detailed and often harrowing biography.  
  
(C) After they had finished the meal they asked the waiter the bill.  
  
(D) By the time she arrives, we will have finished our homework.

|  |
| --- |
|  |
|  | A and B |
|  | A and D |
|  | B and D |
|  | Only C |

Given below are a few sentences. Identify the sentence(s)/ part(s) of the sentence(s) that is/are correct in terms of grammar and usage (including spelling, punctuation and logical consistency). Then choose the most appropriate option.  
  
(A) Imagine a speck of dust close to a planet a billion times the size of earth. The speck of dust represents the odds in favour of your being born.  
  
(B) The huge planet would be the odds against itself. So stop sweating the small stuff.  
  
(C) Don’t be like the ingrate who got a castle as a present and worried about the mildew in the bathroom.  
  
(D) Stop looking at the gift horse in the mouth- remember that you are a Black Swan.

|  |
| --- |
|  |
|  | A & B |
|  | A & D |
|  | C & D |
|  | C |

Given below are five sentences. Each sentence has a pair of words that are italicised. From the italicised words, select the most appropriate words (A or B) to form correct sentences. The sentences are followed by options that indicate the words, which may be selected to correctly complete the set of sentences. From the options given, choose the most appropriate one.  
  
He showed us grisly (A)/grizzly (B) photos of the crime scene.  
Salman’s last (A)/latest (B) movie which was released yesterday is a big hit.  
The trees cast a big shade (A)/shadow (B), so he sat under it.  
The vice-president must now take on the mantle (A)/mettle (B) of supreme power.  
The garden blazed (A)/braised(B) with colour.

|  |
| --- |
|  |
|  | AABAB |
|  | BBBBA |
|  | ABBAA |
|  | BBAAB |

Given below are five sentences. Each sentence has a pair of words that are italicised. From the italicised words, select the most appropriate words (A or B) to form correct sentences. The sentences are followed by options that indicate the words, which may be selected to correctly complete the set of sentences. From the options given, choose the most appropriate one.  
  
I haven’t seen him for (A)/ since (B) over five years.  
The teacher asked us to use our fantasy (A)/ imagination (B)while writing essays.  
He should be arriving briefly (A)/shortly (B).  
Unfortunately inflation is on the rise (A)/ raise (B) again.  
The opposition parties are making political capital (A) / capitol (B)out of the government’s problems.

|  |
| --- |
|  |
|  | ABABA |
|  | ABBAA |
|  | BBBAB |
|  | AABAB |

A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.  
  
The realist at last loses patience with ideals altogether, and sees in them only something to blind us, something to numb us, something to murder self in us, something whereby, instead of resisting death, we can disarm it by committing suicide. The idealist, who has taken refuge with the ideals because he hates himself and is ashamed of himself, thinks that all this is so much the better.

|  |
| --- |
|  |
|  | And it is not the ignorant and stupid who maintain this error, but the literate and the cultured. |
|  | The idealist says, ‘Realism means egotism; and egotism means depravity.’ |
|  | The realist, who has come to have a deep respect for himself and faith in the validity of his own will, thinks it so much the worse. |
|  | Unfortunately, this is the sort of speech that nobody but a realist understands. |

A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.  
  
Christopher Dell’s “Monsters: A Bestiary of the Bizarre” is a visual typology of the monstrous. Dell draws on images from across centuries and continents to celebrate the hideous fecundity of the human imagination. ‘Resistance to monsters is clearly futile,’ he writes. ‘While we may no longer worry about being eaten by trolls on the way home, there remains a fascination with, and fear of, these creatures that have shadowed us throughout history.

|  |
| --- |
|  |
|  | It shows us what man’s imagination can do to man.’ |
|  | After all, we should remember God is our creator.’ |
|  | After all, we should remember who created them: not the gods, not Echidna, but man.’ |
|  | Believe in God, not in fantasy |

A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.  
  
Months after its debut, “Hillary: The Movie” faces the supreme court. The justices’ review of the documentary financed by long term critics of Secretary of State Hillary Clinton could bring more than just a thumbs up or thumbs down.

|  |
| --- |
|  |
|  | It may win all time high approval ratings for the Secretary of State. |
|  | It will vindicate the faith of movie goers the world over. |
|  | It may settle the question of whether Hillary deserves to be so popular. |
|  | It may settle the question of whether the government can regulate a politically charged film as a campaign ad. |

Five sentences are given below, labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph. From the given options, choose the most appropriate one.  
  
A. In 1986 it was renamed Recent Acquisitions because, as the museum’s director Philippe de Montebello wrote, the rise in art prices “has limited the quantity and quality of acquisitions to the point where we can no longer expect to match the standards of just a few years ago.”  
  
B. And as the museum’s buying power fades, public experience of art is impoverished, and the brain drain of gifted young people from curatorship into art dealing accelerates.  
  
C. From the point of view of American museums, the art-market boom is an unmitigated disaster.  
  
D. The symbol of the Metropolitan Museum of Art’s plight is an annual booklet that used to be titled Notable Acquisitions.  
  
E. These institutions voice a litany of complaints, a wrenching sense of disfranchisement and weakness, as their once adequate annual buying budgets of $2 million to $5 million are turned to chicken feed by art inflation.

|  |
| --- |
|  |
|  | ABECD |
|  | DABEC |
|  | CEDAB |
|  | DABCE |

The passage given below is followed by a question. Choose the most appropriate answer to the question.  
  
Why should this absolutely God-given faculty of memory retain so much better the events of yesterday than those of last year, and, best of all, those of an hour ago? Why, again, in old age should its grasp of childhood’s events seem firmest? Why should repeating an experience strengthen our recollection of it? Why should drugs,fevers, asphyxia, and excitement resuscitate things long since forgotten? . . . such peculiarities seem quite fantastic; and might, for aught we can see a priori, be the precise opposites of what they are. Evidently, then, the faculty does not exist absolutely, but works under conditions; and the quest of the conditions becomes the psychologist’s most interesting task.  
  
Which one of the following can be inferred from the passage?

|  |
| --- |
|  |
|  | We tend to misunderstand our brains’ status quo. |
|  | The functions of faculty of memory are beyond human comprehension. |
|  | Psychologists are trying to understand how memory functions. |
|  | Psychologists believe that understanding the conditions under which faculty of memory operates is the key to understand this faculty. |

**Directions for next three questions:** Answer the questions on the basis of the information given below.   
  
IILK organized a 2-day Indian Classical Music Event with three slots on each day. Four artists – Subbu, Kumar, Shankar and Kehsanloy – and three bands – Delhi Sea, GTH and Mitti – performed at the event. In each slot, an artist or a band or a combination of an artist and a band performed. No artist performed alone in the last slot of a day and no band performed alone in the first slot.  
  
Whenever Delhi Sea and Mitti performed, they did it in two successive slots with Delhi Sea performing before Mitti. The number of performances given by Shankar was less than that given by GTH and the last performance of Shankar was held before the first performance of GTH. Subbu performed alone only once during the event and that was in the first slot on the second day. The sum of the number of performances given by Mitti, Kehsanloy and Kumar respectively wasn’t a prime number. The total number of performances given by the artists was equal to the total number of performances given by the bands.  
  
It is known that Kehsanloy performed in the last slot on both the days. If a combination of an artist and a band performed in two of the slots on the second day, then who performed in the second slot on the first day?

|  |
| --- |
|  |
|  | Shankar-GTH |
|  | Shankar-Mitti |
|  | Mitti |
|  | Kumar-Mitti |

If Kumar performed on both the days, then he must have performed with which of the bands?

|  |
| --- |
|  |
|  | Delhi Sea |
|  | GTH |
|  | Mitti |
|  | Cannot be determined |

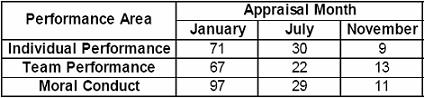
Which of the following statements cannot be true?

|  |
| --- |
|  |
|  | Kehsanloy and GTH performed in the third slot on the first day. |
|  | Shankar and Mitti performed in the second slot on the first day. |
|  | Kumar and GTH performed in the third slot on the second day. |
|  | None of these |

The question given below is followed by two statements, A and B. Mark the answer using the following instructions:  
  
**Q.** The houses of Pavan, Pranab, Mohit and Santosh are of different sizes and each house has some vehicle parking slots. Pavan stays in the second smallest house, which has the same number of parking slots as that in Pranab’s house. The largest house is not the one with the highest number of parking slots. Santosh’s house is not the smallest. The sum of the number of parking slots in Mohit’s house and Pranab’s house is an even number. Who among the four stays in the second largest house and how many parking slots does it have?  
  
**A.**One house has two parking slots and the remaining three houses have one parking slot each.  
  
**B.** The four houses have two, three, three and five parking slots, in no particular order.

|  |
| --- |
|  |
|  | if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone. |
|  | if the question can be answered by using either statement alone. |
|  | if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. |
|  | if the question cannot be answered even by using both the statements together |

**Directions for next two questions:** Answer the questions on the basis of the information given below.  
  
The performance appraisal of the employees of Hondai Motors Pvt Ltd. was done three times in the year 2010. The first appraisal was done in January, the second in July and the third in November. Only the employees who were appraised in January were eligible for appraisal in July and only those who were appraised in July were eligible for appraisal in November.  
  
During an appraisal, an employee was appraised on exactly one of the three performance areas – Individual Performance, Team Performance and Moral Conduct. An employee already appraised on a particular performance area was not appraised on the same performance area in subsequent appraisal(s) during the year.  
  
The table given below shows the number of employees appraised in each of the three appraisal months in 2010 for different performance areas.



How many employees of Hondai Motors Pvt Ltd. were appraised on exactly one performance area in 2010?

|  |
| --- |
|  |
|  | 235 |
|  | 121 |
|  | 154 |
|  | None of these |

Among the employees of Hondai Motors Pvt Ltd. who were appraised in 2010, how many were not appraised on Individual Performance?

|  |
| --- |
|  |
|  | 125 |
|  | 134 |
|  | 113 |
|  | 165 |

Each of the five children – Aman, Bhanu, Chaman, Deepak and Elhan – likes at least one activity among Rowing, Singing, Dancing, Sketching and Running. Each activity except Dancing is liked by at least three of the five children. There are two children who like exactly the same set of activities. Aman likes Rowing and Running. There is no activity which is liked by both Aman and Deepak. Both Bhanu and Deepak like Dancing but there is no other activity which is liked by both of them. Deepak likes Sketching. Who among the five children definitely like Running?

|  |
| --- |
|  |
|  | Aman, Bhanu, Chaman and Elhan. |
|  | Aman, Chaman, Deepak and Elhan. |
|  | Aman, Chaman and Elhan. |
|  | Aman, Bhanu and Chaman |

**Directions for next three questions:** Answer the questions on the basis of the information given below.   
  
Ten people – Chuck, Berry, David, Gilmour, Eric, Clapton, Jimmy, Page, Kirk and Hammett – live in a building that has six floors numbered 1 to 6 (lowest to highest). Each floor is occupied by at least one of the ten people. If N(x) represents the number of people living on floor x, then N(1) = N(6)  \ne N(3) and N(2) = N(5). Also, N(x)  \ne N(x+1) for x = 1 to 5. It is also known that:  
  
(i) Both Chuck and Berry live on the floor that is immediately above the floor on which Kirk lives.  
  
(ii) David lives on a higher floor as compared to Clapton, Jimmy and Hammett but on a lower floor as compared to Chuck.  
  
(iii) Gilmour and Page live on the same floor.  
  
(iv) The number of people who live on the floor on which Jimmy lives is equal to that on which Eric lives.  
  
What is the difference between the number of people who live on floor 3 and floor 5?

|  |
| --- |
|  |
|  | 0 |
|  | 1 |
|  | 3 |
|  | 2 |

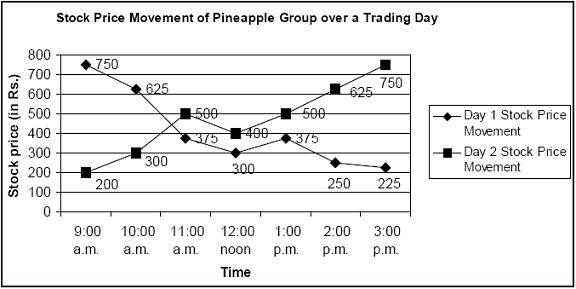
Who among the following lives on floor 6?

|  |
| --- |
|  |
|  | Eric |
|  | David |
|  | Chuck |
|  | Gilmour |

How many people live on a floor higher than the one on which Jimmy lives?

|  |
| --- |
|  |
|  | 7 |
|  | 5 |
|  | 9 |
|  | 6 |

**Directions for next two questions:** Answer the questions on the basis of the information given below.  
  
Two stock traders – Hasan and Sajid – trade in the shares of Pineapple Group only. Each of them follows a different strategy for selling and buying the stocks. Sajid sells an equal number of shares at 9 a.m. and 10 a.m. and buys them back in equal numbers at 1 p.m. and 2 p.m. Hasan sells some shares at 11 a.m. and the rest at 12 noon such that the amount he gets on the two occasions is the same. He buys back the whole lot at 3 p.m. The chart given below displays the performance of Pineapple Group stock on two particular days – Day 1 and Day 2.  
  
The profit/loss made by a trader on a particular day is the difference between the amount that he obtains by selling the shares and the amount that he spends in buying the shares. “Margin” for a day is the profit/loss expressed as a percentage of the total amount obtained by selling the shares on that day.



If Sajid and Hasan sold an equal number of shares on Day 1, then which of the following statements would definitely be true?  
  
I. Hasan made more profit than Sajid on Day 1.  
  
II. Hasan made less profit than Sajid on Day 1.  
  
III. Hasan’s Margin was more than Sajid’s Margin on Day 1.  
  
IV. Hasan’s Margin was less than Sajid’s Margin on Day 1.

|  |
| --- |
|  |
|  | I only |
|  | I and IV |
|  | II and IV |
|  | I and III |

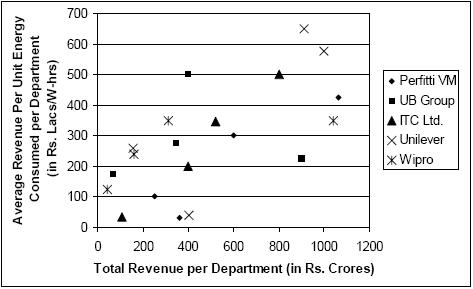
What was the ratio of Hasan’s Margin to Sajid’s Margin on Day 2?

|  |
| --- |
|  |
|  | 13 : 20 |
|  | 11 : 20 |
|  | 20 : 13 |
|  | Cannot be determined |

The question given below is followed by two statements, A and B. Mark the answer using the following instructions:  
  
**Q.** ABCD is a cyclic quadrilateral in which AB = 8 cm and BC = 15 cm. What is the area of the quadrilateral?  
**A.** AD = CD  
**B.** The length of the diameter of the circumcircle of triangle BCD is 17 cm.

|  |
| --- |
|  |
|  | if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone. |
|  | if the question can be answered by using either statement alone. |
|  | if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. |
|  | if the question cannot be answered even by using both the statements together. |

**Directions for next three questions:** Answer the questions on the basis of the information given below.  
  
The graph given below shows the statistics of five companies – Perfitti VM, UB Group, ITC, Unilever and Wipro – in India. Each point on the graph indicates the Total Revenue generated by a different department of one of these companies and the Average Revenue generated per Unit Energy Consumed by that particular department.



If the departments represented in the graph are the only departments in the five companies where energy is consumed, then for which company is the Energy Consumption the highest?

|  |
| --- |
|  |
|  | Wipro |
|  | UB Group |
|  | ITC Ltd. |
|  | None of these |

How many of the represented departments across the five companies have consumed less than 100W-hrs of energy?

|  |
| --- |
|  |
|  | Seven |
|  | Three |
|  | Five |
|  | Six |

Which of the five companies has the highest number of departments that generate more than Rs. 600 crores as the Total Revenue and consume less than 200W-hrs of energy?

|  |
| --- |
|  |
|  | Perfitti VM |
|  | Unilever |
|  | Wipro |
|  | ITC Ltd. |

Six persons – Chetan, Kartik, Hari, Pankaj, Naresh and Vicky – are married to Radha, Kiran, Shama, Hema, Divya, and Charu, not necessarily in the same order. There is no person among the six whose name starts with the same letter as his wife’s name. They are going on a picnic in three cars such that each car has two couples. It is known that:  
  
(i) Charu is not in the same car as Hari.  
  
(ii) Radha is in the same car as Pankaj.  
  
(iii) Shama is in the same car as Hema.  
  
(iv) Kiran is not in the same car as Naresh.  
  
(v) Divya is not in the same car as Charu.  
  
If Vicky is in a car in which nobody’s name starts with the same letter as that of any of the other eleven persons, then which of the following statements cannot be true?

|  |
| --- |
|  |
|  | Shama is married to Hari. |
|  | Hema is married to Kartik. |
|  | Radha is married to Vicky. |
|  | Pankaj is married to Divya |

Eight persons – Anu, Bindu, Candy, Dolly, Emran, Fiza, Gauri and Hemant – are sitting at a square table, in the same order, in clockwise direction. Two persons are sitting on each side of the table. Two of them are Managers, two Executives, two Consultants and two Engineers.  
  
The Executives are sitting opposite each other. One of the Executives is sitting on the same side of the table as an Engineer and on his/her left. The Consultants are sitting opposite each other and each of them is sitting next to an Engineer. The Managers are sitting next to each other. If Anu is a Consultant who is sitting next to a Manager, then which of the following statements is definitely false?

|  |
| --- |
|  |
|  | Fiza is an Executive. |
|  | Hemant is sitting next to a Manager. |
|  | Emran is an Engineer. |
|  | None of these |

**Directions for next two questions:**Answer the questions on the basis of the information given below.  
  
The graph given below shows the total Exports and Imports of a country for four different years.  
  
