

Mock CAT - 07 2019

Scorecard (procreview.jsp?sid=aaaFOuj1h2PZo7o7VNG6wSat Jan 11 21:08:20 IST 2020&qsetId=FB88/DI5jno=&qsetName=Mock CAT - 07 2019)

Accuracy (AccSelectGraph.jsp?sid=aaaFOuj1h2PZo7o7VNG6wSat Jan 11 21:08:20 IST 2020&qsetId=FB88/DI5jno=&qsetName=Mock CAT - 07 2019)

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Solutions (Solution.jsp?sid=aaaFOuj1h2PZo7o7VNG6wSat Jan 11 21:08:20 IST 2020&qsetId=FB88/DI5jno=&qsetName=Mock CAT - 07 2019)

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Sec 1

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Q. I					
The main p	ourpose of	f the autho	r in the	passage	is to:

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- 1 assert the genetic heritage of the ancient and modern day Greeks to be decidedly un-European.
- 2 criticise the Hollywood portrayal of ancient Greeks as being White in genetic terms.
- **3** trace the non-European roots of the ancient and modern day Greeks.
- 4 explain that the genetic makeup of the ancient Greeks was likely to be non-white.

Answer key/Solution

Direction for questions (1-5): Read the given passages and answer the questions that follow.

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Q.2

As per the passage, what can be inferred from the research paper mentioned in the third paragraph?

1 The modern day Greeks don't share a genetic code with their European counterparts.

2 The ancient Greece was a hub of immigration and demographic assimilation	n.
3 The Minoan Greeks were not white in their skin tone and they most likely ha	ad darker hair and eyes.
4 Homer's Achilles was probably shorter and darker than the way the Western	n world portrays him.
FeedBack	■ Bookmark
	ه Answer key/Solution

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All of the following have been mentioned in the passage as traps affecting our description of the appearance of the ancient Greeks except:

- 1 the interpretation of the term 'European'.
- 2 the origin of the Greek language.
- 3 the fallacy of reading a fact of nature as a historical construct.
- 4 the misleading association between the speakers of a language and their genetic family.

Answer key/Solution

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Q.4

As per the passage, the Greeks have all of the following ancestry except:

2 Angolian.	
3 ○ Iranian.	
4 O Armenian.	
FeedBack	■ Bookmark
	4 Answer key/Solution

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Q.5 Why does the author call 'European' a meaningless term for ancient history?
1 O Because it's a term that is likely to mislead us in our perception of what the ancient Greeks looked like.
2 Because the ancient Greeks were not interested in the region known as the modern day Europe.

4 Decause the ancient Greeks dealt primarily with people from the eastern Mediterranean and they had no trade connection with Europe.

3 Because the term must be defined by genetic terms and not by assumptions.



Answer key/Solution

Direction for questions (6-9): Read the given passages and answer the questions that follow.

In literature there is no better, no more lyrical, no more perfectly metaphorical illness than heart disease. In real life, heart disease is none of the above; it's frightening, sudden, shattering, exhausting, but not lyrical or metaphorical. When the novelist or playwright employs it, however, we don't complain that he's being unrealistic or insensitive.

Why? It's frighteningly straightforward.

Aside from being the pump that keeps us alive, the heart is also, and has been since ancient times, the symbolic repository of emotion. In both 'The Iliad' and 'The Odyssey' Homer has characters say of other characters that they have 'a heart of iron', iron being the newest and hardest metal known to men of the late Bronze Age. The meaning, if we allow for some slight variations of context, is tough-minded, resolute even to the point of hard-heartedness – in other words, just what we might mean by the same statements today. Sophocles uses the heart to mean the centre of emotion within the body, as do Dante, Shakespeare, Donne, Marvell, Hallmark...all the great writers. Despite this nearly constant use over at least twenty-eight hundred years, the figure of the heart never overstays its welcome, because it always is welcome. Writers use it because we feel it. What shapes were your Valentine's cards in when you were a kid? Or last year, for that matter? When we fall in love, we feel it in our hearts. When we lose a love, we feel heartbroken. When overwhelmed by strong emotion, we feel our hearts are full to bursting.

Everybody knows this, everybody intuitively senses this. What, then, can the writer do with this knowledge? The writer can use heart ailments as a kind of shorthand for the character, which is probably what happens most often, or he can use it as a social metaphor. The afflicted character can have any number of problems for which heart disease provides a suitable emblem: bad love, loneliness, cruelty, pederasty, disloyalty, cowardice, lack of determination. Socially, it may stand for these matters of a larger scale, or for something seriously amiss at the heart of things.

We are not just talking classic literature here. When Colin Dexter decides to kill off his recurrent detective Morse in 'The Remorseful Day', he has a number of options. The chief inspector is a genius at solving crimes and crossword puzzles, but like all geniuses, he has flaws. Specifically, he drinks too much and remains a complete stranger to physical fitness, so much so that in the novel after novel his Thames Valley Police superiors mention his excessive fondness for "the beer". His liver and digestive system are seriously compromised, to the point where he is hospitalised for these problems in a previous Morse novel. His major problem, though, is loneliness. Morse has spectacularly bad luck with his women; several wind up as either corpses or culprits in his various adventures, while others just don't work out. Sometimes he's too needy, other times too unbending, but time after time, he loses out. So, when the time comes for him to collapse amid the spires of his beloved Oxford University, Dexter gives him a heart attack.

Why?

We're into the realm of speculation here, but this is how it strikes me. To have Morse succumb to cirrhosis of the liver turns the whole thing into a straightforward piece of moralizing: see, we told you drinking too much is bad for you. Morse's drinking would go from being a quaint idiosyncrasy to something from one of those old school-guidance films, and that is not what Dexter wants. But with a heart attack, the connection to an overfondness for drink is still there if that's what some readers want to see, but now the ailment points not towards his behaviour but towards the pain and suffering, the loneliness and regret, of his sad-sack love life, that may be causing the behaviour.

1 O Because it is the metaphorical storehouse of our emotions.	
2 Because we feel things and react to them with heart.	
3 Because its meaning in literature has not altered to any extent.	
4 Because without heart, humans would become unemotional creatures.	
FeedBack	■ Bookmark
	♣ Answer key/Solution

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As per the passage, it can be inferred that Dexter gave Morse a heart attack at the end in order to:
1 refrain from equating his story with a moral fable.
2 avoid his tale symbolizing a moral code.

4 generate more sympathy for the character by avoiding his shortcomings.

3 better reflect Morse's characterisation via his death.



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1 O Speculative and indecisive	
2 Analytical and critical	
3 Objective and profound	
4 Unbiased and explanatory	
FeedBack	■ Bookmark
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In literature there is no better, no more lyrical, no more perfectly metaphorical illness than heart disease. In real life, heart disease is none of the above; it's frightening, sudden, shattering, exhausting, but not lyrical or metaphorical. When the novelist or playwright employs it, however, we don't complain that he's being unrealistic or insensitive.

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Aside from being the pump that keeps us alive, the heart is also, and has been since ancient times, the symbolic repository of emotion. In both 'The Iliad' and 'The Odyssey' Homer has characters say of other characters that they have 'a heart of iron', iron being the newest and hardest metal known to men of the late Bronze Age. The meaning, if we allow for some slight variations of context, is tough-minded, resolute even to the point of hard-heartedness – in other words, just what we might mean by the same statements today. Sophocles uses the heart to mean the centre of emotion within the body, as do Dante, Shakespeare, Donne, Marvell, Hallmark...all the great writers. Despite this nearly constant use over at least twenty-eight hundred years, the figure of the heart never overstays its welcome, because it always is welcome. Writers use it because we feel it. What shapes were your Valentine's cards in when you were a kid? Or last year, for that matter? When we fall in love, we feel it in our hearts. When we lose a love, we feel heartbroken. When overwhelmed by strong emotion, we feel our hearts are full to bursting.

Everybody knows this, everybody intuitively senses this. What, then, can the writer do with this knowledge? The writer can use heart ailments as a kind of shorthand for the character, which is probably what happens most often, or he can use it as a social metaphor. The afflicted character can have any number of problems for which heart disease provides a suitable emblem: bad love, loneliness, cruelty, pederasty, disloyalty, cowardice, lack of determination. Socially, it may stand for these matters of a larger scale, or for something seriously amiss at the heart of things.

We are not just talking classic literature here. When Colin Dexter decides to kill off his recurrent detective Morse in 'The Remorseful Day', he has a number of options. The chief inspector is a genius at solving crimes and crossword puzzles, but like all geniuses, he has flaws. Specifically, he drinks too much and remains a complete stranger to physical fitness, so much so that in the novel after novel his Thames Valley Police superiors mention his excessive fondness for "the beer". His liver and digestive system are seriously compromised, to the point where he is hospitalised for these problems in a previous Morse novel. His major problem, though, is loneliness. Morse has spectacularly bad luck with his women; several wind up as either corpses or culprits in his various adventures, while others just don't work out. Sometimes he's too needy, other times too unbending, but time after time, he loses out. So, when the time comes for him to collapse amid the spires of his beloved Oxford University, Dexter gives him a heart attack.

Why?

We're into the realm of speculation here, but this is how it strikes me. To have Morse succumb to cirrhosis of the liver turns the whole thing into a straightforward piece of moralizing: see, we told you drinking too much is bad for you. Morse's drinking would go from being a quaint idiosyncrasy to something from one of those old school-guidance films, and that is not what Dexter wants. But with a heart attack, the connection to an overfondness for drink is still there if that's what some readers want to see, but now the ailment points not towards his behaviour but towards the pain and suffering, the loneliness and regret, of his sad-sack love life, that may be causing the behaviour.

Q.9	
As per the passage, which of the following can't describe Morse's life?	
1 O Lazy and unfortunate	
2 Intelligent but flawed	
3 O Lugubrious yet grief-stricken	
4 O Headstrong and lonely	



Answer key/Solution

Direction for questions (10-14): Read the given passages and answer the questions that follow.

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Q.10

Which of the following, if true, would most seriously challenge Platt's views on long-term studies?

- 1 Field studies is the most popular form of research analysis favoured by a larger number of renowned natural historians and biologists.
- 2 Critical data regarding biological organisms can't be gathered with a spatiotemporal constraint.
- 3 Majority of the data gathered by Biologists during their field studies can't be generalised.

4 Even Darwin, the most celebrated figure in the field of Biology, believed in the saying 'variety is the spice of life'.

FeedBack

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0.11

The author in the passage cites Darwin in order to:

- 1 ocunter the core philosophy of Platt.
- $2\, \bigcirc$ introduce a new approach to interpreting the core message of Platt.

expose a core flaw in Platt's views on research methodology.
 highlight the importance of field studies in the evolution of Biology as a branch of natural Science.

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Q.12
Why does Platt state that Biology should follow physical sciences?

1 O Because the latter was more successful than the former.

2 Decause physical sciences select simple models that generate testable hypotheses.	
3 Because Biology needs to utilise the importance of the 'If <i>this,</i> then <i>that;</i> if not, then <i>ot</i> interpretation.	<i>her</i> ' method of logical
4 Because it would help Biology become more structured and quantitative in its approach	h.
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1 ○ It is the result of a series of lab experiments.	
2 It faces the complication of dealing with studies that differ in size	e and scale.
3 ○ It is largely a context driven discipline.	
4 It is the philosophical predecessor to Ecology as many biologists studies.	s inspired the evolving field with geography based
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Q.14 As per the passage, it can be said that in dealing with field studies, Platt believed in all of the following except:	
1 O individual variation.	
2 quantitative method.	
3 analytical inductive inference.	
4 ○ short term studies.	
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	م Answer key/Solution

Information and communication technologies (ICTs) offer countries a new approach to creating transparency and promoting anti-corruption. Many nations with transparency laws have directly tied the implementation of these laws to the implementation of ICT-based initiatives, often through e-government. ICTs can reduce corruption by promoting good governance, strengthening reform-oriented initiatives, reducing potential for corrupt behaviours, enhancing relationships between government employees and citizens, allowing for citizen tracking of activities, and by monitoring and controlling behaviours of government employees. To successfully reduce corruption, however, ICT-enabled initiatives generally must move from increasing information access to ensuring rules are transparent and applied to building abilities to track the decisions and actions of government employees.

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One of the most widely studied anti-corruption e-government initiatives is the Seoul Metropolitan Government's Online Procedures Enhancement for civil applications (OPEN) system, which was launched in 1999 with multiple distinct anti-corruption measures embedded into the functions of the system. The OPEN system was part of a widespread government and corporate initiative to transform Korean government. Prior to the launch of OPEN, the government of Seoul was renowned for its levels of corruption, with the government officials who processed applications and petitions able to decide the order in which they would process materials, forcing citizen to pay "express fees" to get their materials processed. As such, the premise of OPEN was to reduce the number of places that government officials and citizens interacted directly.

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Q.15

Which of the following is the central claim of the author in this passage?

- 1 O ICTs can decisively eradicate corruption from every sphere of public life.
- 2 ICTs can be effective in augmenting efficiency only if the government supports it by initiating transparent policies.
- 3 ICTs have significant potential to promote efficiency, transparency, and anti-corruption measures.
- 4 O ICTs, in conjunction with other technical and social factors, can help check and prevent corruptions from the public sphere.

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0.16 Which of the following inference is valid regarding the impact of OPEN? 1 O It was a reformative measure launched to change the way of governance in Seoul. 2 ☐ It empowered the Seoul public to refuse to give bribes to corrupt officials. 3 ☐ It tracked and regulated the day to day functions of corrupt government officials. 4 It helped change the common man's perception of the Seoul government. FeedBack

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Q.17
ICTs can reduce corruption by all of the following except:

1 preventing the onset of corrupt behaviours.

2 empowering citizens of a state to track government employees.

3 boosting the ties between general populace and bureaucrats.

4 bolstering enterprises which promote reform.

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Q.18
Which of the following will adversely affect ICTs?

1 Aggressive tendencies of corrupt governments

2 Social attitudes towards anti-corruption

3 Lack of cooperation by employees

4 Legal and social rules that deal with transparency

Information and communication technologies (ICTs) offer countries a new approach to creating transparency and promoting anti-corruption. Many nations with transparency laws have directly tied the implementation of these laws to the implementation of ICT-based initiatives, often through e-government. ICTs can reduce corruption by promoting good governance, strengthening reform-oriented initiatives, reducing potential for corrupt behaviours, enhancing relationships between government employees and citizens, allowing for citizen tracking of activities, and by monitoring and controlling behaviours of government employees. To successfully reduce corruption, however, ICT-enabled initiatives generally must move from increasing information access to ensuring rules are transparent and applied to building abilities to track the decisions and actions of government employees.

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One of the most widely studied anti-corruption e-government initiatives is the Seoul Metropolitan Government's Online Procedures Enhancement for civil applications (OPEN) system, which was launched in 1999 with multiple distinct anti-corruption measures embedded into the functions of the system. The OPEN system was part of a widespread government and corporate initiative to transform Korean government. Prior to the launch of OPEN, the government of Seoul was renowned for its levels of corruption, with the government officials who processed applications and petitions able to decide the order in which they would process materials, forcing citizen to pay "express fees" to get their materials processed. As such, the premise of OPEN was to reduce the number of places that government officials and citizens interacted directly.

OPEN initially included the 54 government services where corruption had been deemed most likely to occur, with citizens able to look up the status of their materials and the relevant government officials online. The OPEN system itself continually checks for delays in processing, and government officials and departments must provide reasons for such delays. Studies have credited OPEN with reducing corruption and increasing transparency, especially in terms of the regulation of the activities of government employees. The success of the system has also dramatically changed perceptions of the residents of Seoul about corruption, with 68% crediting OPEN with noticeably reducing government corruption in its first five years of operation.

Q.19 Which of the following is a valid assumption m

Which of the following is a valid assumption made by the author in discussing the potential of ICTs?

- 1 Transparent rules, in conjunction with open access to information, make reform initiatives more effective.
- 2 Without public support, ICTs can't be effective in imposing transparency.
- 3 A corrupt government won't pursue reform measures.
- 4 Transparency and access to information are the key goals of a responsible government.

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Leadership attributions in performance evaluations are powerful. A unique and fascinating data set allowed us to explore the language used to describe individuals in subjective performance evaluations and provided evidence that language in performance evaluations is applied differently to describe men and women. We analyzed over 4,000 participants and 81,000 evaluations to examine objective and subjective performance measures that included a list of 89 positive and negative leadership attributes that were used to assess leader performance.

In our analysis we found no gender differences in objective measures (e.g., grades, fitness scores, class standing), which is consistent with prior research. However, the subjective evaluations provided a wealth of interesting findings.

For starters, in terms of sheer numbers of attributes, we found no gender difference in the number of positive attributes assigned, but women were assigned significantly more negative attributes.

Our research on leadership attributes found significant differences in the assignment of 28 leadership attributes when applied to men and women. While men were more often assigned attributes such as analytical, competent, athletic and dependable, women were more often assigned compassionate, enthusiastic, energetic and organized. Consistent with our results, societal attitudes suggest that women leaders are described as more compassionate (the most assigned attribute overall) and organized than men leaders. In contrast, women were more often evaluated as inept, frivolous, gossipy, excitable, scattered, temperamental, panicky, and indecisive, while men were more often evaluated as arrogant and irresponsible.

These are not just words — they can have real-life implications for employees and organizations. Language in performance evaluations can tell us what is valued and what is not in an organization. Employees also know what is valued and make choices and decisions about how well they fit in an organization and their potential to advance.

Some studies have shown that women are more likely to receive vague feedback that is not connected to objectives or business outcomes, which is a disadvantage when women are competing for job opportunities, promotions, and rewards, and in terms of women's professional growth and identity. And women leaders often get conflicting feedback — told on the one hand that they're too bossy or aggressive, but on the other that they should be more confident and assertive. A huge body of work has found that when women are collaborative and communal, they are not perceived as competent—but when they emphasize their competence, they're seen as cold and unlikable, in a classic "double bind."

One of the things that's ironic about our findings is that many of the leadership traits that people say they most appreciate, want in a leader, or make a successful leader are the positive traits — such as compassion — that women leaders receive in their performance evaluations. So why isn't this translating into more women in these roles? It's one thing to describe an ideal leader, it's another to describe a real person's performance without being influenced by stereotypes about their gender, or stereotypes about what a leader should be.

Which of the following can be inferred about the findings of the author's research?
1 O There was no overlap between the terms attributed to men and women.
2 ○ A woman is more likely to receive negative attribute than a man is.

- 3 O It is difficult for a competent woman to be perceived positively in the professional sphere.
- 4 An inept person is more likely to be fired from a job than an arrogant person is.

0.20



Answer key/Solution

Direction for questions (20-24): Read the given passages and answer the questions that follow.

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Q.21

What does the author term as 'ironic'?

- 1 Women leaders being called compassionate
- 2 Women leaders receiving positive attributes
- 3 Women leaders facing societal biases despite being perceived as being successful

4 Women leaders receiving attributes ascribed to successful leaders

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Answer key/Solution

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Q.22

As per the other studies mentioned in the passage, why are women more likely to receive vague feedback?

- 1 O Because of general perception bias by peers
- 2 Decause they receive conflicting feedbacks

3 O Because of the lack of a uniform standard of perception	
4 Because they are generally at a disadvantage in leadership roles	
FeedBack	■ Bookmark

& Answer key/Solution

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Q.23
As used in the passage, 'double bind' most nearly refers to:

1 a societal prejudice.

2 a personal impasse.	
3 ○ a personal dilemma.	
4 ○ a societal knot.	
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	م Answer key/Solution

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Q.24

The author implies that the subjective evaluations of the research:

proved the existence of a perception bias against women when it comes to attributing feminine adjectives yielded some surprises when it came to the objective measures of evaluation. gender difference was more pronounced in subjective evaluations. FeedBack	
gender difference was more pronounced in subjective evaluations. RedBack Rookmark	•
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25 sctions for question (25): The passage given below is followed by four summaries. Choose the option that be tures the author's position. sing the time of our ancestors the existence of individuals who were hypervigilant to threat may well, evolutiogists suggest, have been decisive in the fight against predators – and from this point of view, anxiety wou oubtedly have served as a considerable adaptive advantage. The more sensitive you were to rustlings in the ergrowth the more likely you'd have been to have kept yourself, your family, and your extended group membe. Even today, anxious individuals are better than the rest of us at detecting the presence of threat. Being anxious can sometimes be useful. Since the beginning of evolution, anxiety has kept us alive. Being anxious has had an evolutionary impact on humans. The more anxious one is, the more one is likely to survive extinction.	
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Q.26

Directions for question (26): The passage given below is followed by four summaries. Choose the option that best captures the author's position.

Mathematical work led by physicist Stephen Hawking proposes a solution to a theoretical mystery called the 'black hole information paradox'. Black holes are thought to suck in everything around them, including all information about objects that fall into them. In the 1970s Hawking showed that black holes emit radiation, later termed 'Hawking radiation', eventually causing the black hole to evaporate and disappear along with information it has consumed. That contradicts the standard laws of quantum physics, which state that information cannot be destroyed. Now Hawking and two co-authors propose that quantum excitations called 'soft hairs' surround the black hole and retain some of this information. The team originally posted this idea to the preprint site 'arXiv' in January, where it was met with skepticism. After reworking some math, Hawking's team demonstrated even stronger evidence for the soft hairs' existence and published a peer-reviewed paper.

- 1 Stephen Hawking and his team have successfully proven that information isn't actually destroyed, and black holes ultimately emit everything.
- $2 \bigcirc$ Stephen Hawking and his team have proposed evidence which can help solve the problem of black hole information paradox.
- 3 The existence of 'soft hairs' has helped solve a major paradox related to the role of information in the formation of black holes.
- 4 The nature of black holes had caused a physical paradox by defying the laws of quantum physics which has now been disproved by Hawking.

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Answer key/Solution

Q.27

Directions for question (27): The passage given below is followed by four summaries. Choose the option that best captures the author's position.

It is a wonder that any working person could afford a trip to the theatre, yet nearly all relevant contemporary accounts make clear that the theatre was robustly popular with the labouring classes throughout the depressed years. Quite how they managed it, even when employed, is a mystery, because in sixteenth-century London working people really worked – from 6 a.m. to 6 p.m. in winter and till 8 p.m. in summer. Since plays were performed in the middle of that working day, it wouldn't seem self-evidently easy for working people to get away. Somehow, they did.

- 1 O Though it seems impossible now, during the depressed years in London, working people managed to derive pleasure out of a visit to the theatre.
- 2 Somehow, working people in London managed to sneak out of their work in the middle of the day to keep the theatres robust.
- 3 Labourers in London managed to keep the theatres affoat during the era of depression.
- 4 The success of theatres in London during the sixteenth century appears mysterious because of the apparent time conflict.

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Answer key/Solution

Q.28

Directions for question (28): Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

- 1. These animals have been around for about 500 million years—even before the dinosaurs.
- 2. They have even inspired the names of submarines and exercise equipment.
- 3. The chambered nautilus or 'Nautilus pompilius' is a large, mobile cephalopod which is called a "living fossil".
- 4. Of all the cephalopods, nautiluses are the only animal to have a visible shell.
- 5. It has been the subject of poetry, artwork, math, and jewellery.

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Answer key/Solution

Q.29

Directions for question (29): Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

- 1. This angel was very tall and gave a female appearance: slender, radiant, and translucent.
- 2. Instead I saw something like a replica church in golden light that was much bigger than the physical church.
- 3. As I stopped and looked, I saw an angel walking out of the Church.
- 4. But I could see this golden church at the same time as seeing the bricks and mortar of the physical church.
- 5. This angel was much bigger than the arch and door of the Church, and it was as if the arch and doorway weren't there for the angel.

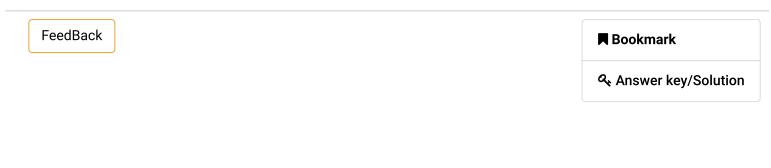
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Q.30

Directions for question (30): Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

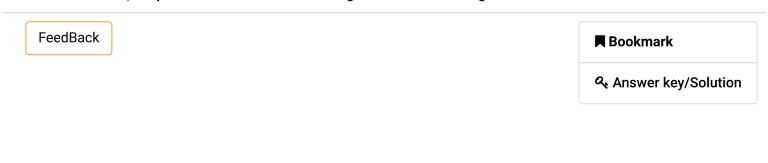
- 1. The boundary created thereby was altered slightly by the 1953 armistice that suspended hostilities in the Korean War
- 2. North Korea's economic rise from the ashes of war was impressive, particularly given its political isolation from the Western world.
- 3. North Korea, backed politically by the Soviet Union and the People's Republic of China, was formed in the area south of China and Russia (bordered by the Amnok and Tumen rivers) and roughly north of the 38th parallel.
- 4. Although the affirmation of a unified and independent Korean state was agreed upon by the major powers in discussions during 1943 to 1945, the Yalta Conference at the end of World War II resulted in the partitioning of Korea.
- 5. Since then, the Korean Peninsula has been politically and economically divided.



Q.31

Directions for question (31): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. Both were dressed in denim trousers and in denim coats with brass buttons.
- 2. The first man was small and quick, dark of face, with restless eyes and sharp, strong features.
- 3. They had walked in single file down the path, and even in the open one stayed behind the other.
- 4. Both wore black, shapeless hats and both carried tight blanket rolls slung over their shoulders.



Q.32

Directions for question (32): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. Most of Project Linus's volunteers are older women (although the age range is diversifying) who might be less mobile.
- 2. Both feel there's a double social impact involved in the volunteering projects.
- 3. Bright says his site is popular with people who have a disability or who are limited in the amount of travel they can do.
- 4. And that home-based opportunities can often fit in with people's lifestyles more easily.

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Answer key/Solution

Q.33

Directions for question (33): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. The time, likewise, at which the continent was discovered, adds weight to the argument.
- 2. Even the distance at which the Almighty hath placed England and America, is a strong and natural proof that the authority of the one over the other was never the design of heaven.
- 3. And the manner in which it was peopled, increases the force of it.
- 4. The blood of the slain, the weeping voice of nature cries, "tis time to part."

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Answer key/Solution

Q.34

Directions for question (34): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. A clear and exalted perception enabled her to dismiss the suggestion as trivial.
- 2. She did not stop to ask if it were or were not a monstrous joy that held her.
- 3. But she saw beyond that bitter moment a long procession of years to come that would belong to her absolutely.
- 4. She knew that she would weep again when she saw the kind, tender hands folded in death.

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Directions for questions 35 to 38: Answer the questions on the basis of the information given below.

The 77th round of Socio-economic survey is being conducted from January 1, 2019 to December 31, 2019 by National Sample Survey Office (NSSO), under the ministry of Statistics and Programme Implementation. This round is earmarked for the collection of data on land and livestock holding of households of Punjab. Jyoti, an enumerator, was asked to collect the information about four different livestock i.e. the number of buffaloes, cows, goats and hens in the given order for some households and represent them in the form of H(a, b, c, d) i.e, the number of buffaloes, cows, goats and hens for household 'H' are a, b, c and d respectively.

Jyoti selected the three households – H1, H2 and H3 – for the same purpose and recorded the required number of livestock but instead of ordering in aforementioned order i.e H(# buffaloes, # cows, # goats, # hens), she ordered those in ascending order of number of animals of each type. For example, if the numbers of buffaloes, cows, goats and hens for household H are 8, 6, 4 and 5 respectively, then she represented it as H(4,5,6,8) instead of H(8,6,4,5). So, the data represented by her for the three households is as follows:

H1 (10, 25, 30, 35), H2 (30, 40, 50, 60) and H3 (40,50,60,70).

Q.35

But she had some additional information with her which is as follows:

- (i) The total number of cows from all the three households is 145 and that of hens is 130.
- (ii) The number of goats is same for two, out of these three, households.
- (iii) The average number of goats of all the three households is greater than the average number of buffaloes of these three households.
- (iv) The number of buffaloes is different for all the three households.
- (v) The number of cows in any of the three households is not an integral multiple of any odd perfect square n, where n > 1.

If the total number of each of the four livestock of all the three households are unequal, then the sum of number of hens in H2 and the number of buffaloes in H3 is

1 120
2 110
3 140
4 90
FeedBack

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Jyoti selected the three households – H1, H2 and H3 – for the same purpose and recorded the required number of livestock but instead of ordering in aforementioned order i.e H(# buffaloes, # cows, # goats, # hens), she ordered those in ascending order of number of animals of each type. For example, if the numbers of buffaloes, cows, goats and hens for household H are 8, 6, 4 and 5 respectively, then she represented it as H(4,5,6,8) instead of H(8,6,4,5). So, the data represented by her for the three households is as follows:

H1 (10, 25, 30, 35), H2 (30, 40, 50, 60) and H3 (40,50,60,70).

But she had some additional information with her which is as follows:

- (i) The total number of cows from all the three households is 145 and that of hens is 130.
- (ii) The number of goats is same for two, out of these three, households.
- (iii) The average number of goats of all the three households is greater than the average number of buffaloes of these three households.
- (iv) The number of buffaloes is different for all the three households.
- (v) The number of cows in any of the three households is not an integral multiple of any odd perfect square n, where n > 1.

Q.36
If the number of goats in H1 is 25, then what could be the ratio of the number of goats in H2 to the number of buffaloes in H3?

1 5:6

2 3:2

3 6:5

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4 Either (1) or (2)

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- (iv) The number of buffaloes is different for all the three households.
- (v) The number of cows in any of the three households is not an integral multiple of any odd perfect square n, where n > 1.

Q.37

If there is another provision to award points to the livestock of each household, i.e. 5 points are given to the highest number of livestock, 4 points are given to the second highest number, 3 points to the third highest number and 2 points to the least number of live stock of each household, then which of the following would be the sum of points given to the hens of all the three households?

1 0 11	
2 12	
3 🔾 15	
4 🔾 13	
FeedBack	■ Bookmark
	Answer key/Solution

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- (iii) The average number of goats of all the three households is greater than the average number of buffaloes of these three households.
- (iv) The number of buffaloes is different for all the three households.
- (v) The number of cows in any of the three households is not an integral multiple of any odd perfect square n, where n > 1.

Q.38

Which of the following statements can be true?

- (i) The ratio of number of cows and hens in H3 is 7:5
- (ii) The ratio of number of cows and goats in H3 is 5:4.
- (iii) The ratio of number of goats and hens in H2 is 2:1.
- (iv) The ratio of number of goats and buffaloes in H1 is 6:5.

1 Only (i) and (iii)		
2 Only (i) and (iv)		
3 Only (ii) and (iii)		
4 O All (i), (ii), (iii) and (iv)		
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Susheel, an intern, works from home for two companies - XYZ company and ABC company - wherein he works 'a' hours/day and 'b' hours/day respectively. He continues with this pattern for 1 week, with an exactly opposite pattern for next week and so on for consecutive four weeks. Then, every fifth week he takes different values of 'a' and 'b' as his working hours for the two companies and follows the same pattern as earlier mentioned with these new values. His working hours for XYZ company will be considered as the time spent in resting for ABC company, similarly his working hours for ABC company will be considered as the time spent in resting for XYZ company. For example, in the first week, while working for 'a' hours/day for XYZ company and 'b' hours/ day for ABC company, those 'b' hours/day of Susheel are considered to be spent in resting for XYZ company and those 'a' hours/day are considered to be spent in resting for ABC company. Also, his wages are decided according to the time he invests in working i.e, when he works longer than he rests for a company, his wage per hour is twice than whatever he earns per hour, when he rests longer than he works.

The following are his daily working hours for the weeks numbered from 1 to 13.

1st week 5th week 9th week 13th week

Work hours for company XYZ 3 4 5 0 Work hours for company ABC 6 8 7 9

Note: A week consists of six working days and a month consists of 4 weeks.

Q.39

If Susheel is paid Rs.40 and Rs. 20 per working hour by company XYZ and ABC respectively for the days when his resting hours are longer than working hours, then what is his salary (in Rupees) for the 1st month?

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♣ Answer key/Solution

Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

Susheel, an intern, works from home for two companies - XYZ company and ABC company - wherein he works 'a' hours/day and 'b' hours/day respectively. He continues with this pattern for 1 week, with an exactly opposite pattern for next week and so on for consecutive four weeks. Then, every fifth week he takes different values of 'a' and 'b' as his working hours for the two companies and follows the same pattern as earlier mentioned with these new values. His working hours for XYZ company will be considered as the time spent in resting for ABC company, similarly his working hours for ABC company will be considered as the time spent in resting for XYZ company. For example, in the first week, while working for 'a' hours/day for XYZ company and 'b' hours/ day for ABC company, those 'b' hours/day of Susheel are considered to be spent in resting for XYZ company and those 'a' hours/day are considered to be spent in resting for ABC company. Also, his wages are decided according to the time he invests in working i.e, when he works longer than he rests for a company, his wage per hour is twice than whatever he earns per hour, when he rests longer than he works.

The following are his daily working hours for the weeks numbered from 1 to 13.

1st week 5th week 9th week 13th week

Work hours for company XYZ 3 4 5 0
Work hours for company ABC 6 8 7 9

Note: A week consists of six working days and a month consists of 4 weeks.

Q.40

Susheel is paid Rs.40 and Rs. 20 per working hour by company XYZ and ABC respectively for the days when his resting hours are longer than working hours. Also, his per hour wage is increased by 10% by company ABC and decreased by 5% by company XYZ only for the second month.

What will be his average monthly salary (in Rupees) for the first four months?

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Answer key/Solution

Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

Susheel, an intern, works from home for two companies - XYZ company and ABC company - wherein he works 'a' hours/day and 'b' hours/day respectively. He continues with this pattern for 1 week, with an exactly opposite pattern for next week and so on for consecutive four weeks. Then, every fifth week he takes different values of 'a' and 'b' as his working hours for the two companies and follows the same pattern as earlier mentioned with these new values. His working hours for XYZ company will be considered as the time spent in resting for ABC company, similarly his working hours for ABC company will be considered as the time spent in resting for XYZ company. For example, in the first week, while working for 'a' hours/day for XYZ company and 'b' hours/ day for ABC company, those 'b' hours/day of Susheel are considered to be spent in resting for XYZ company and those 'a' hours/day are considered to be spent in resting for ABC company. Also, his wages are decided according to the time he invests in working i.e, when he works longer than he rests for a company, his wage per hour is twice than whatever he earns per hour, when he rests longer than he works.

The following are his daily working hours for the weeks numbered from 1 to 13.

1st week 5th week 9th week 13th week

 Work hours for company XYZ
 3
 4
 5
 0

 Work hours for company ABC
 6
 8
 7
 9

Note: A week consists of six working days and a month consists of 4 weeks.

Q.41

Susheel is paid Rs.40 and Rs. 20 per working hour by company XYZ and ABC respectively for the days when his resting hours are longer than working hours. Also, his per hour wage is increased by 10% by company ABC and decreased by 5% by company XYZ only for the second month.

Khushaldas, the new manager of company XYZ who joined at the starting of 9th week, changed the per hour wages from Rs. 40 to Rs. 25 and additionally stipulated that Rs. 5/hour would be deducted for resting starting from 9th week itself. What will be the change (in Rupees) in Susheel's new salary for the 3rd month as compared to his salary for 3rd month calculated in the previous question?

(Hourly deductions are constant for all weeks starting 9th week)

1 0 8700	
2 0 4140	
3 3210	
4 0 4000	

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Answer key/Solution

Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

Susheel, an intern, works from home for two companies - XYZ company and ABC company - wherein he works 'a' hours/day and 'b' hours/day respectively. He continues with this pattern for 1 week, with an exactly opposite pattern for next week and so on for consecutive four weeks. Then, every fifth week he takes different values of 'a' and 'b' as his working hours for the two companies and follows the same pattern as earlier mentioned with these new values. His working hours for XYZ company will be considered as the time spent in resting for ABC company, similarly his working hours for ABC company will be considered as the time spent in resting for XYZ company. For example, in the first week, while working for 'a' hours/day for XYZ company and 'b' hours/ day for ABC company, those 'b' hours/day of Susheel are considered to be spent in resting for XYZ company and those 'a' hours/day are considered to be spent in resting for ABC company. Also, his wages are decided according to the time he invests in working i.e, when he works longer than he rests for a company, his wage per hour is twice than whatever he earns per hour, when he rests longer than he works.

The following are his daily working hours for the weeks numbered from 1 to 13.

1st week 5th week 9th week 13th week

Work hours for company XYZ 3 4 5 Work hours for company ABC 6 8 7

Note: A week consists of six working days and a month consists of 4 weeks.

Q.42

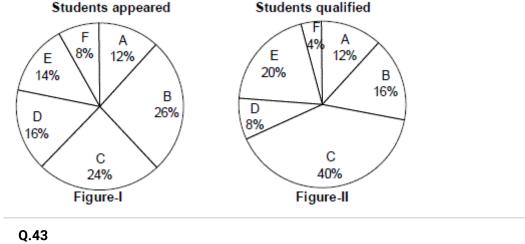
Susheel is paid Rs.40 and Rs. 20 per working hour by company XYZ and ABC respectively for the days when his resting hours are longer than working hours. Also, his per hour wage is increased by 10% by company ABC and decreased by 5% by company XYZ only for the second month.

0

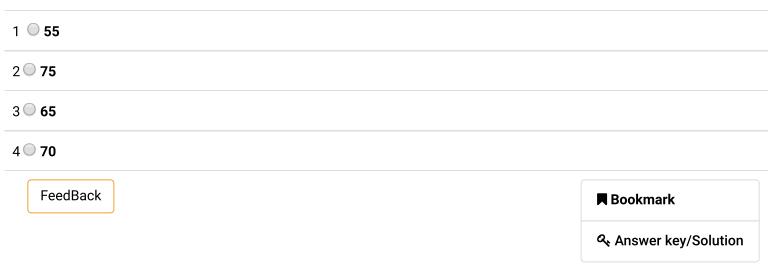
9

Khushaldas, the new manager of company XYZ who joined at the starting of 9th week, changed the per hour wages from Rs. 40 to Rs. 25 and additionally stipulated that Rs. 5/hour would be deducted for resting starting from 9th week itself. What will be the total earnings (in Rupees) of Susheel at the end of sixteen weeks? (Hourly deductions are constant for all weeks starting 9th week)

Science Olympiad conducted an examination for the 10th grade students of 6 different schools - A, B, C, D, E and F - of Delhi. The figure-I shown below gives the break-up of the students among these schools who appeared for the examination and the figure-II shown below gives the break up of the qualified students among these schools.

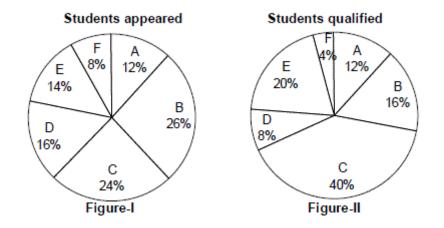


If 45% of the students who appeared from school A, also qualified the exam, then what percent of the students appeared from school C also qualified the exam?



Directions for questions 43 to 46: Answer the questions on the basis of the information given below.

Science Olympiad conducted an examination for the 10th grade students of 6 different schools - A, B, C, D, E and F - of Delhi. The figure-I shown below gives the break-up of the students among these schools who appeared for the examination and the figure-II shown below gives the break up of the qualified students among these schools.



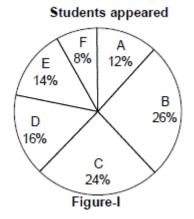
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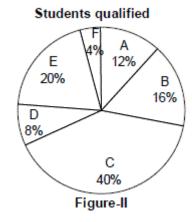
■ Bookmark

Answer key/Solution

Directions for questions 43 to 46: Answer the questions on the basis of the information given below.

Science Olympiad conducted an examination for the 10th grade students of 6 different schools - A, B, C, D, E and F - of Delhi. The figure-I shown below gives the break-up of the students among these schools who appeared for the examination and the figure-II shown below gives the break up of the qualified students among these schools.



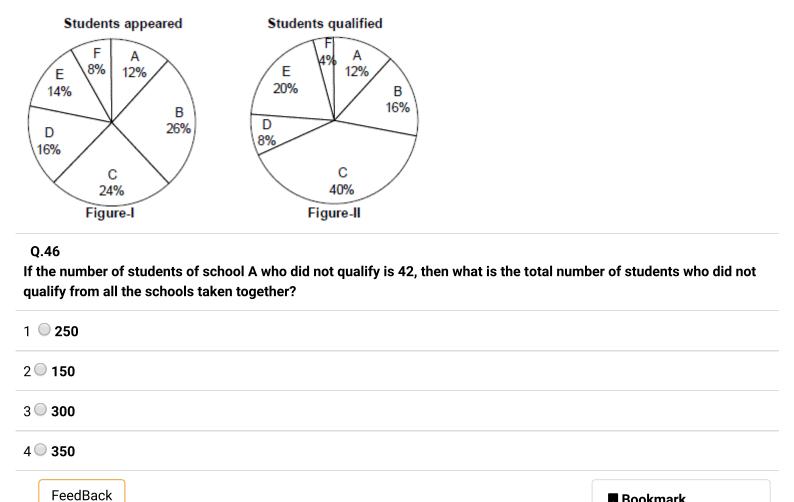


Q.45
If the number of qualified students from school D is 10, then what is the least number of students from school A who did not qualify?

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Four cricket teams - India, Srilanka, Bangladesh and Pakistan- participated in Asia Cup Cricket Tournament, wherein each team played with the every other team exactly once in the 1st round. Each team has one world renowned batsman among Sachin, Inzamam, Jaya Surya and Shakib, not necessarily in the same order, and also these 4 batsmen were the top 4 scorers in the tournament, in any order. For every match, a team got 2 points on winning that match and 0 points on losing. Further, it is known that no match ended in a tie in the 1st round.

The partial information, about the total points scored by the teams at the end of the 1st round, is given below:

 $\begin{array}{ccc} \text{India} & \rightarrow & \text{2 points} \\ \text{Pakistan} & \rightarrow & \text{4 points} \end{array}$

The number of centuries and half-centuries scored by the top 4 given scorers at the end of the 1st round are:

Batsmen	Half centuries	Centuries
Sachin		2
Inzamam	2	
Jaya Surya		
Shakib		

Further, the following information about the centuries and the half centuries made by the top 4 scorers of the tournament, by the end of the 1st round, is also known.

- 1. Each of the given top 4 batsmen scored different number of centuries and half-centuries.
- 2. The number of centuries and half-centuries for any batsman is not the same.
- 3. Whenever the renowned batsman of a team scored a century, his team won that particular match.
- 4. Srilanka scored more points than Bangladesh because of the performance of its world renowned batsman, Shakib.
- 5. No player scored double century in a single match.

Q.47 Which of the following teams did Inzamam play for?	
1 O India	
2 O Bangladesh	
3 O Pakistan	
4 O Data Inadequate	
FeedBack	■ Bookmark
	ه Answer key/Solution

Four cricket teams - India, Srilanka, Bangladesh and Pakistan- participated in Asia Cup Cricket Tournament, wherein each team played with the every other team exactly once in the 1st round. Each team has one world renowned batsman among Sachin, Inzamam, Jaya Surya and Shakib, not necessarily in the same order, and also these 4 batsmen were the top 4 scorers in the tournament, in any order. For every match, a team got 2 points on winning that match and 0 points on losing. Further, it is known that no match ended in a tie in the 1st round.

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- 3. Whenever the renowned batsman of a team scored a century, his team won that particular match.
- 4. Srilanka scored more points than Bangladesh because of the performance of its world renowned batsman, Shakib.
- 5. No player scored double century in a single match.

Q.48

Which of the following statements is true?

- 1 Bangladesh and Pakistan have same total points at end of the 1st round.
- 2 Sachin scored more half-centuries than Jaya Surya.
- 3 Doth Shakib and the batsman of Bangladesh together have scored more centuries than halfcenturies.
- 4 India lost one of its matches to Pakistan.

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Four cricket teams - India, Srilanka, Bangladesh and Pakistan- participated in Asia Cup Cricket Tournament, wherein each team played with the every other team exactly once in the 1st round. Each team has one world renowned batsman among Sachin, Inzamam, Jaya Surya and Shakib, not necessarily in the same order, and also these 4 batsmen were the top 4 scorers in the tournament, in any order. For every match, a team got 2 points on winning that match and 0 points on losing. Further, it is known that no match ended in a tie in the 1st round.

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- 4. Srilanka scored more points than Bangladesh because of the performance of its world renowned batsman, Shakib.
- 5. No player scored double century in a single match.

0.49

What is the difference between the highest total points and the second highest total points scored?

Four cricket teams - India, Srilanka, Bangladesh and Pakistan- participated in Asia Cup Cricket Tournament, wherein each team played with the every other team exactly once in the 1st round. Each team has one world renowned batsman among Sachin, Inzamam, Jaya Surya and Shakib, not necessarily in the same order, and also these 4 batsmen were the top 4 scorers in the tournament, in any order. For every match, a team got 2 points on winning that match and 0 points on losing. Further, it is known that no match ended in a tie in the 1st round.

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- 2. The number of centuries and half-centuries for any batsman is not the same.
- 3. Whenever the renowned batsman of a team scored a century, his team won that particular match.
- 4. Srilanka scored more points than Bangladesh because of the performance of its world renowned batsman, Shakib.
- 5. No player scored double century in a single match.

0.50

If the 1st round started with team India playing against Srilanka, Bangladesh and Pakistan in this given sequence, then Srilanka played against the other two teams following the same sequence, then which of the following teams lost its first two matches?

first two matches?		
1 O India		
2 O Bangladesh		
3 O Both India and Bangladesh		
4 O Neither India nor Bangladesh		
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	Answer key/Solution	

Eight students - Amit, Chetan, Eklavya, Guneet, Inder, Kapil, Manan, Piyush - of IIMA were assigned four assignments on Financial derivatives, Valuation of stocks, Debt market and Portfolio management. Four of them worked as leaders for the four assignments and the remaining four students had to assist the four leaders by taking one or more assignments. It is known that one of the assistants took all four assignments, one took three assignments, one took two assignments and one took only one assignment.

Some additional information about them is also known.

- 1. Piyush worked as an assistant in only Portfolio management assignment.
- 2. The assignment on Financial derivatives was taken by Amit and Eklavya only.
- 3. Chetan and Guneet had taken two assignments together.
- 4. Inder was the part of assignment on Valuation of stocks only.
- 5. Kapil and Amit were the leaders of the assignments which did not have maximum participants.
- 6. Chetan participated with one more assistant in an assignment but not with Guneet.

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Which of the following statements must be incorrect?

- 1 Manan is the leader of assignment on Portfolio management.
- 2 Eklavya participated in maximum number of assignments.
- 3 Kapil had three assistants for his assignment.
- 4 Valuation of stocks assignment did not have Eklavya as its member.

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Answer key/Solution

Directions for questions 51 to 54: Answer the questions on the basis of the information given below.

Eight students - Amit, Chetan, Eklavya, Guneet, Inder, Kapil, Manan, Piyush - of IIMA were assigned four assignments on Financial derivatives, Valuation of stocks, Debt market and Portfolio management. Four of them worked as leaders for the four assignments and the remaining four students had to assist the four leaders by taking one or more assignments. It is known that one of the assistants took all four assignments, one took three assignments, one took two assignments and one took only one assignment.

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- 2. The assignment on Financial derivatives was taken by Amit and Eklavya only.
- 3. Chetan and Guneet had taken two assignments together.
- 4. Inder was the part of assignment on Valuation of stocks only.
- 5. Kapil and Amit were the leaders of the assignments which did not have maximum participants.
- 6. Chetan participated with one more assistant in an assignment but not with Guneet.

0.52

Which of the following is definitely a correct combination of all participants in an assignment?

- 1 Valuation of stocks: Inder, Chetan, Guneet
- 2 Portfolio Management: Kapil, Eklavya, Chetan, Piyush

4 ○ Valuation of stocks: Inder, Eklavya, Chetan, Guneet	
FeedBack	■ Bookmark
	م Answer key/Solution
Directions for questions 51 to 54: Answer the questions on the bas Eight students - Amit, Chetan, Eklavya, Guneet, Inder, Kapil, Manan on Financial derivatives, Valuation of stocks, Debt market and Port	, Piyush - of IIMA were assigned four assignment folio management. Four of them worked as leader
for the four assignments and the remaining four students had to as	
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Eight students - Amit, Chetan, Eklavya, Guneet, Inder, Kapil, Manan, Piyush - of IIMA were assigned four assignments on Financial derivatives, Valuation of stocks, Debt market and Portfolio management. Four of them worked as leaders for the four assignments and the remaining four students had to assist the four leaders by taking one or more assignments. It is known that one of the assistants took all four assignments, one took three assignments, one took two assignments and one took only one assignment.

Some additional information about them is also known.

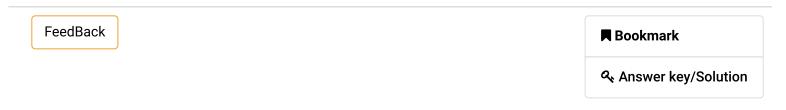
- 1. Piyush worked as an assistant in only Portfolio management assignment.
- 2. The assignment on Financial derivatives was taken by Amit and Eklavya only.
- 3. Chetan and Guneet had taken two assignments together.
- 4. Inder was the part of assignment on Valuation of stocks only.
- 5. Kapil and Amit were the leaders of the assignments which did not have maximum participants.
- Chetan participated with one more assistant in an assignment but not with Guneet.

Which of the following statements must be correct? Decided the following statements must be correct? Eklavya and Guneet participated in two assignments together. Eklavya participated in exactly three assignments. Manan is the assistant participated in only two assignments. Kapil and Piyush were partners in assignment on Portfolio management. FeedBack RedBack Answer key/Solution

Directions for questions 55 to 58: Answer the questions on the basis of the information given below.

Each of the 200 students, of "CL school", participated in at least one of the four events – 1000m marathon, 2000m marathon, 4000m marathon, and 8000m marathon. 80 students participated in each of the 1000m, 2000m, 4000m and 8000m marathons. An equal number of students participated in only 1000m, only 2000m, only 4000m and only 8000m marathons. An equal number of students participated in each possible pair of any two events out of - 1000m, 2000m, 4000m and 8000m marathon. An equal number of students also participated in each combination of three of the events. 30 students participated in all the four events.

Q.55
Find the maximum possible number of students who participated in only 4000m marathon.



Each of the 200 students, of "CL school", participated in at least one of the four events - 1000m marathon, 2000m marathon, 4000m marathon, and 8000m marathon. 80 students participated in each of the 1000m, 2000m, 4000m and 8000m marathons. An equal number of students participated in only 1000m, only 2000m, only 4000m and only 8000m marathons. An equal number of students participated in each possible pair of any two events out of - 1000m, 2000m, 4000m and 8000m marathon. An equal number of students also participated in each combination of three of the events. 30 students participated in all the four events.

Q.56 Find the maximum possible number of students who participated in all the three events – 1000m, 2000m and 4000m marathon.	
1 0 33	
2 26	
3 🔾 22	
4 🔾 30	
FeedBack	■ Bookmark
	م Answer key/Solution

Directions for questions 55 to 58: Answer the questions on the basis of the information given below.

Each of the 200 students, of "CL school", participated in at least one of the four events - 1000m marathon, 2000m marathon, 4000m marathon, and 8000m marathon. 80 students participated in each of the 1000m, 2000m, 4000m and 8000m marathons. An equal number of students participated in only 1000m, only 2000m, only 4000m and only 8000m marathons. An equal number of students participated in each possible pair of any two events out of - 1000m, 2000m, 4000m and 8000m marathon. An equal number of students also participated in each combination of three of the events. 30 students participated in all the four events.

Q.57 If 35 students participated in only 1000m marathon, then find the number of students who participated in 1000m marathon with at least one other event.			
1 0 35			
2 45			
3 40			
4 🔾 38			
FeedBack	■ Bookmark		

Each of the 200 students, of "CL school", participated in at least one of the four events – 1000m marathon, 2000m marathon, 4000m marathon, and 8000m marathon. 80 students participated in each of the 1000m, 2000m, 4000m and 8000m marathons. An equal number of students participated in only 1000m, only 2000m, only 4000m and only 8000m marathons. An equal number of students participated in each possible pair of any two events out of - 1000m, 2000m, 4000m and 8000m marathon. An equal number of students also participated in each combination of three of the events. 30 students participated in all the four events.

Q.58

If 35 students participated in only 1000m marathon, then find the maximum possible number of students who participated in any two marathons only but not consecutive. (Given that the first event is of 1000m marathon, followed by 2000m, then 4000m and then 8000m marathon.)

by 2000m, then 4000m and then 8000m marathon.)	
1 0 10	
2 0 14	
3 0 20	
4 🔾 15	
FeedBack	■ Bookmark
	← Answer key/Solution

Directions for questions 59 to 62: Answer the questions on the basis of the information given below.

Six school friends - A, B, C, D, E and F - decide to meet each other every month. Each one of them is residing in a different city among Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bengaluru. Also, each of them likes a different brand out of Reebok, Nike, Asics, Puma, Vans and Red tape.

One day, A and the friend from Mumbai met the two friends who like Reebok and Nike and went to B's residence in Kolkata. While discussing at B's residence, they found that D is from Chennai and likes Vans. Also, the friend from Delhi likes Asics and C likes Nike.

0.59

For how many friends the exact combination of city and the brand they like can be determined?



Six school friends - A, B, C, D, E and F - decide to meet each other every month. Each one of them is residing in a different city among Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bengaluru. Also, each of them likes a different brand out of Reebok, Nike, Asics, Puma, Vans and Red tape.

One day, A and the friend from Mumbai met the two friends who like Reebok and Nike and went to B's residence in Kolkata. While discussing at B's residence, they found that D is from Chennai and likes Vans. Also, the friend from Delhi likes Asics and C likes Nike.

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م Answer key/Solution

Directions for questions 59 to 62: Answer the questions on the basis of the information given below.

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One day, A and the friend from Mumbai met the two friends who like Reebok and Nike and went to B's residence in Kolkata. While discussing at B's residence, they found that D is from Chennai and likes Vans. Also, the friend from Delhi likes Asics and C likes Nike.

Q.61
What is the total possible number of combinations of exact information of city and brand that these friends like?

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■ Answer key/Solution

Six school friends - A, B, C, D, E and F - decide to meet each other every month. Each one of them is residing in a different city among Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bengaluru. Also, each of them likes a different brand out of Reebok, Nike, Asics, Puma, Vans and Red tape.

One day, A and the friend from Mumbai met the two friends who like Reebok and Nike and went to B's residence in Kolkata. While discussing at B's residence, they found that D is from Chennai and likes Vans. Also, the friend from Delhi likes Asics and C likes Nike.

Q.62 If A and the friend from Mumbai went to meet F and asked about the brand he likes, what w	ould have F answered?
1 O Puma	
2 Red tape	
3 O Reebok	
4 O Nike	
FeedBack	■ Bookmark
	م Answer key/Solution

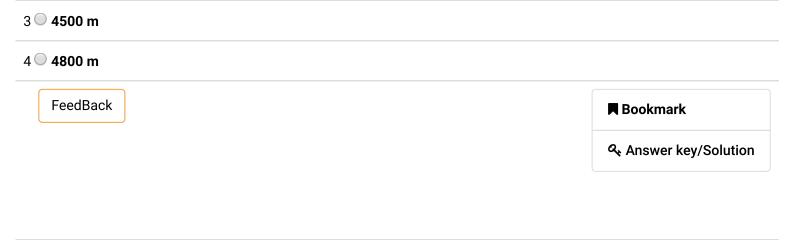
Directions for questions 63 to 66: Answer the questions on the basis of the information given below.

Four employees – Sanjay, Govind, Ram and Hasan – in PQR Company, take a walk every day after lunch, in the ground situated next to their company's headquarter. The group of four is headed by Sanjay, who is the oldest among them. The ages (in years) of the four employees are in an Arithmetic Progression. They follow the same routine every day i.e, every day they reach the ground at the same time, they walk for the same period of time and then return back on work at the same time. All of these things are done between 1 p.m. to 2 p.m. There is a circular track, having length of 300 m, in the ground. All of the four aforementioned employees walk on that circular track only. Three of them walk in the clockwise direction while the fourth one, who is the youngest among them, walks in the anti-clockwise direction, all starting simultaneously from the entry gate. (Note: Meeting at the end point is not considered as overtake)

- (i) The age of the oldest person is 44 years while that of the youngest person is 32 years and he meets the oldest person at three distinct points excluding the starting and end points. The speed of the youngest person is greater than that of the oldest person.
- (ii) While walking, the person, who is older than exactly two persons among them, overtakes the oldest person twice.
- (iii) The person who is older than exactly one person overtakes Sanjay thrice during their walking.
- (iv) Each of the four persons complete integral number of rounds.
- (v) The sum of ages of Sanjay and Ram is equal to that of Govind and Hasan.
- (vi) Govind is four years older than Hasan.

0.63

If Sanjay completes one round, then the total distance covered by all the four employees is



Four employees – Sanjay, Govind, Ram and Hasan – in PQR Company, take a walk every day after lunch, in the ground situated next to their company's headquarter. The group of four is headed by Sanjay, who is the oldest among them. The ages (in years) of the four employees are in an Arithmetic Progression. They follow the same routine every day i.e, every day they reach the ground at the same time, they walk for the same period of time and then return back on work at the same time. All of these things are done between 1 p.m. to 2 p.m. There is a circular track, having length of 300 m, in the ground. All of the four aforementioned employees walk on that circular track only. Three of them walk in the clockwise direction while the fourth one, who is the youngest among them, walks in the anti-clockwise direction, all starting simultaneously from the entry gate. (Note: Meeting at the end point is not considered as overtake)

- (i) The age of the oldest person is 44 years while that of the youngest person is 32 years and he meets the oldest person at three distinct points excluding the starting and end points. The speed of the youngest person is greater than that of the oldest person.
- (ii) While walking, the person, who is older than exactly two persons among them, overtakes the oldest person twice.
- (iii) The person who is older than exactly one person overtakes Sanjay thrice during their walking.
- (iv) Each of the four persons complete integral number of rounds.
- (v) The sum of ages of Sanjay and Ram is equal to that of Govind and Hasan.

(vi) Govind is four years older than Hasan.	
Q.64 If Govind walks 4 rounds, then what is the total distance covered by Ram and Hasan togeth	er?
1 ○ 2100 m	
2 ○ 2400 m	
3 ○ 1800 m	
4 ○ 2000 m	
FeedBack	■ Bookmark
	& Answer key/Solution

Four employees – Sanjay, Govind, Ram and Hasan – in PQR Company, take a walk every day after lunch, in the ground situated next to their company's headquarter. The group of four is headed by Sanjay, who is the oldest among them. The ages (in years) of the four employees are in an Arithmetic Progression. They follow the same routine every day i.e, every day they reach the ground at the same time, they walk for the same period of time and then return back on work at the same time. All of these things are done between 1 p.m. to 2 p.m. There is a circular track, having length of 300 m, in the ground. All of the four aforementioned employees walk on that circular track only. Three of them walk in the clockwise direction while the fourth one, who is the youngest among them, walks in the anti-clockwise direction, all starting simultaneously from the entry gate. (Note: Meeting at the end point is not considered as overtake) Further, it is also known that

- (i) The age of the oldest person is 44 years while that of the youngest person is 32 years and he meets the oldest person at three distinct points excluding the starting and end points. The speed of the youngest person is greater than that of the oldest person.
- (ii) While walking, the person, who is older than exactly two persons among them, overtakes the oldest person twice.
- (iii) The person who is older than exactly one person overtakes Sanjay thrice during their walking.
- (iv) Each of the four persons complete integral number of rounds.
- (v) The sum of ages of Sanjay and Ram is equal to that of Govind and Hasan.
- (vi) Govind is four years older than Hasan.

Q.65 Using the data given in the previous question, find how many times Govind and Ram meet each other on the track(excluding the end point)?			
1 O Twice			
2 O Five times			
3 O Four times			
4 O Six times			
FeedBack	■ Bookmark		
	& Answer key/Solution		

Four employees – Sanjay, Govind, Ram and Hasan – in PQR Company, take a walk every day after lunch, in the ground situated next to their company's headquarter. The group of four is headed by Sanjay, who is the oldest among them. The ages (in years) of the four employees are in an Arithmetic Progression. They follow the same routine every day i.e, every day they reach the ground at the same time, they walk for the same period of time and then return back on work at the same time. All of these things are done between 1 p.m. to 2 p.m. There is a circular track, having length of 300 m, in the ground. All of the four aforementioned employees walk on that circular track only. Three of them walk in the clockwise direction while the fourth one, who is the youngest among them, walks in the anti-clockwise direction, all starting simultaneously from the entry gate. (Note: Meeting at the end point is not considered as overtake)

- (i) The age of the oldest person is 44 years while that of the youngest person is 32 years and he meets the oldest person at three distinct points excluding the starting and end points. The speed of the youngest person is greater than that of the oldest person.
- (ii) While walking, the person, who is older than exactly two persons among them, overtakes the oldest person twice.
- (iii) The person who is older than exactly one person overtakes Sanjay thrice during their walking.
- (iv) Each of the four persons complete integral number of rounds.
- (v) The sum of ages of Sanjay and Ram is equal to that of Govind and Hasan.
- (vi) Govind is four years older than Hasan.

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م Answer key/Solution

Sec 3

Q.67

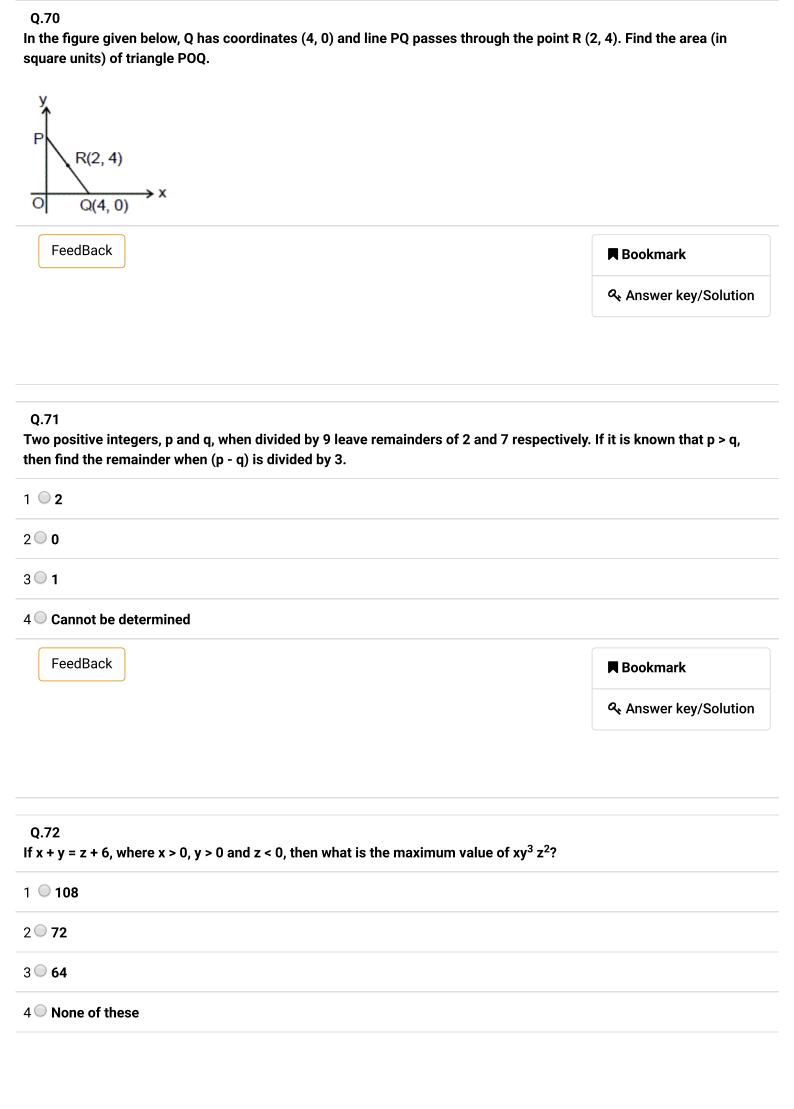
Two friends - Arpita and Ritika - simultaneously started running around a circular track from the same point. Arpita run at A m/s and Ritika at 4 m/s in opposite directions. If they crossed each other at exactly three points on the circular track and A is a natural number less than 15, then how many values can A take?

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Q Answer key/Solution

Q.68 In the days of demonetization, Mr. Rajgotra calculated that he had a local and Rs. 1,000. The average number of currency notes of these three tyminimum amount in Rs. 1,000 denomination followed by that in Rs. 50 in Rs. 100 denomination. What was the maximum possible total amount	ppes with Mr. Rajgotra was 300. Also he had denomination and hence had highest amount
1 0 4,79,100	
2 2,06,400	
3 2,00,500	
4 0 2,03,000	
FeedBack	■ Bookmark
	م Answer key/Solution
Q.69 The cost price of each unit of three items - X, Y and Z - is in ratio 2 : 3 that X is sold at a profit of 20%, Y is sold at profit of 25% and Z is sold the overall percentage of profit/loss made on selling one unit of each of the cost of the	at loss of 10%, then which of the following gives
1 5% loss	
2 O 5% profit	
$3 \bigcirc 8 \frac{1}{3} \%$ profit	
$4 \frac{2}{3}\%$ profit	
FeedBack	■ Bookmark
	م Answer key/Solution



	FeedBack	■ Bookmark
		م Answer key/Solution
ml o	'3 re are three acid solutions - A, B and C - of concentrations 40%, 50% and p% respective f acid A is mixed with 'c' ml of acid C, it produces a solution having 60% concentration, ed with 'c' ml of acid C, it produces a solution having 62% concentration. Find the appro	and 200ml of acid B is
1 (60	
2	62	
3 🔾	64	
40	65	
	FeedBack	■ Bookmark
		♠ Answer key/Solution
com worl	ya and Joy working together can complete a work in 20 days. Aditya alone started the value of the work, then Joy started to work on it and completed the remaining 60 was completed in 70 days. If Aditya works faster than Joy, then in how many days Joy plete the same work?	% work. As a result, the
1 0	60	
20	100	
3 🔾	120	
4 🔾	80	
	FeedBack	■ Bookmark
		م Answer key/Solution

FeedBack

Q.75

PQRS is a square of side 3 cm. X is a point on TQ, where T is the midpoint of PS. If RX is perpendicular to TQ, then the area (in cm²) (correct upto two decimal places) of the quadrilateral RSTX is

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Answer key/Solution

Q.76

If x satisfies the inequality: $|x - 1| + |x - 2| + |x - 3| \le 6$, then which of the following options best describe the range of values that x can assume?

- $1 \bigcirc x \le 2 \text{ or } x \ge 3$
- $2 \bigcirc x \le 1 \text{ or } x \ge 4$
- $3 \bigcirc 0 \le x \le 4$
- $4 \bigcirc x \le 0 \text{ or } x \ge 4$

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Answer key/Solution

Q.77

If the difference between the compound interest and the simple interest accrued on a certain sum at a certain rate of interest at the end of two years is 6.25% of the principal, then find the number of years in which the sum will quadruple under simple interest.

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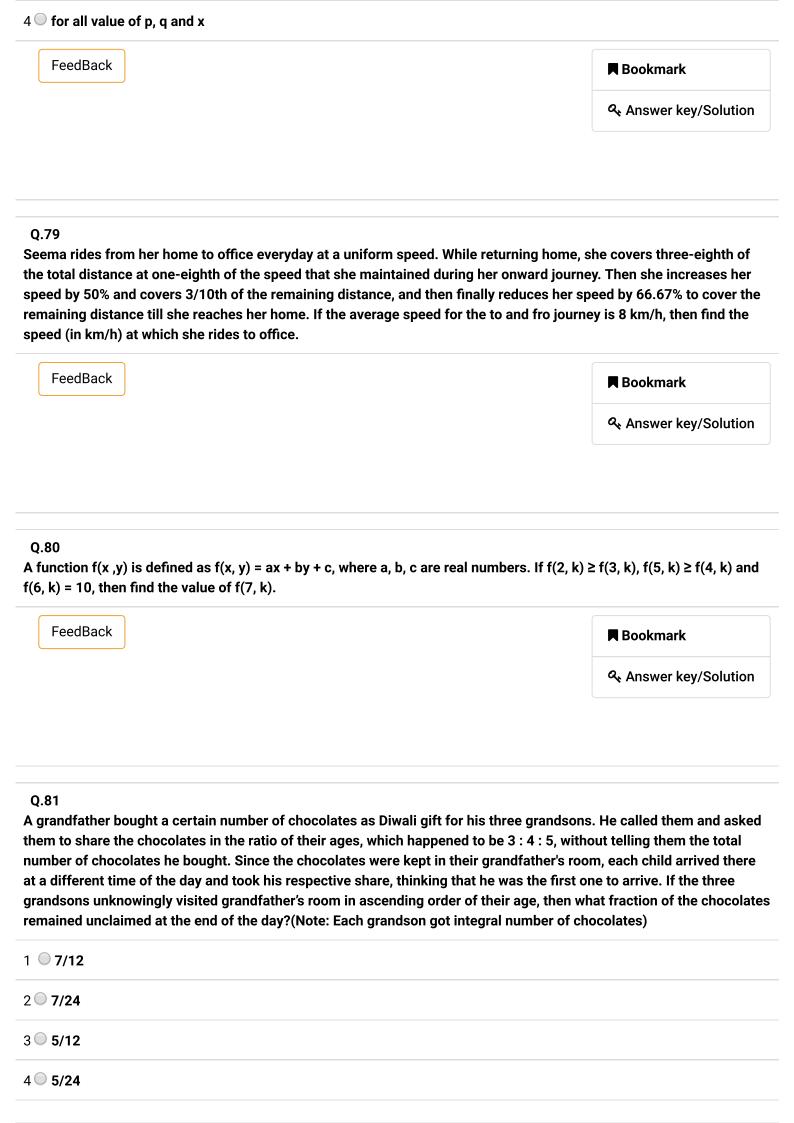
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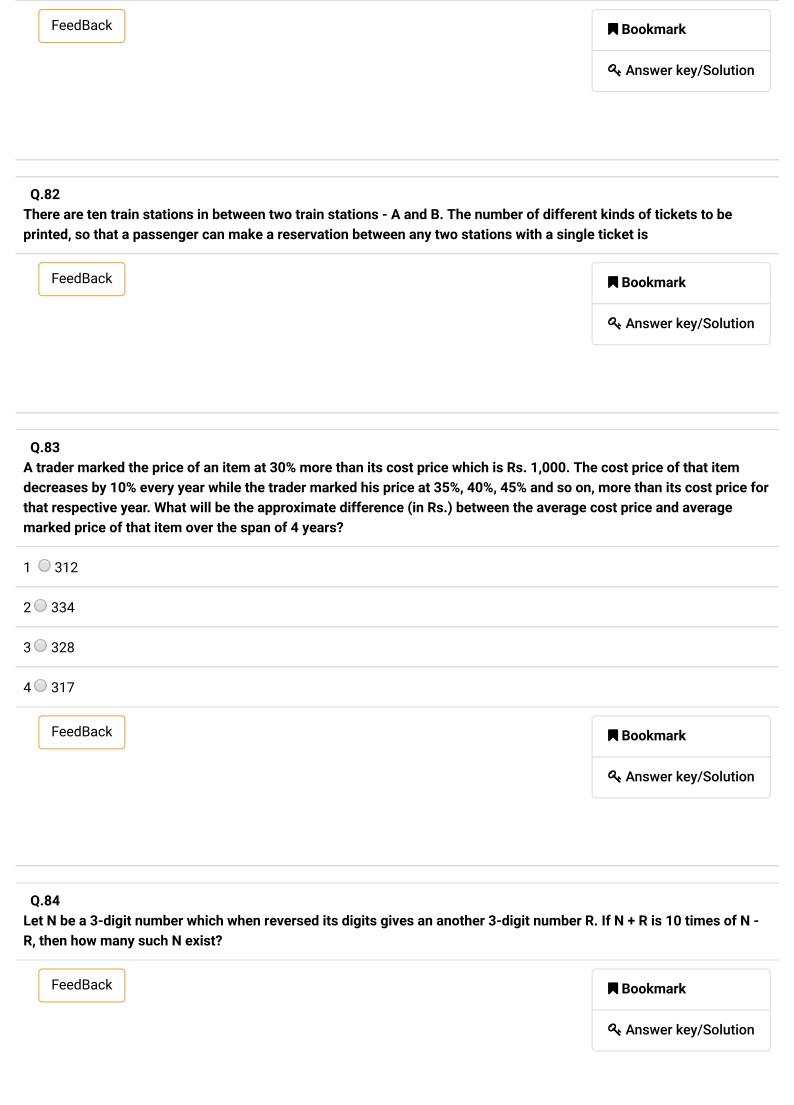
♠ Answer key/Solution

Q.78

If p, q and x are positive real numbers and p, q, $x \ne 1$, then $4(\log_p x)^2 + 3(\log_q x)^2 = 8(\log_p x)(\log_q x)$

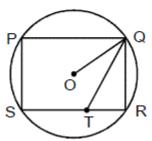
- 1 \bigcirc if and only if $p = q^2$
- 2 \bigcirc if and only if x = pq
- $3 \bigcirc \text{ if p = q}^2 \text{ or p}^3 = q^2$





Q.85

In the figure given below, PQRS is a rectangle inscribed in the circle with center O where side QR less than side PQ. If the area of PQRS and the area of the circle are in the ratio $\sqrt{7}$: 2π , and \angle RQT = \angle OQP, then find RT : RQ.



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♠ Answer key/Solution

Q.86

Three friends - A, B, and C - have a certain number of chocolates with each of them. The number of chocolates with B is 20% more than that with A, which in turn, is two-thirds of that with C. If the number of chocolates with B is less than the total chocolates that A and C together have by x%, then what is the value of x?

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Answer key/Solution

Q.87

P and Q are two series in an Arithmetic Progression (AP). P(n) and Q(n) denotes the sums of the first n terms of the series P and Q respectively, while P_n and Q_n denotes the nth term of series P and Q respectively. If P(n): Q(n) = P(n) to P(n) to

1 949:62

2 0 50:63

3 9 45 : 67

4 0 53 : 74	
FeedBack	■ Bookmark
	م Answer key/Solution
Q.88	
A certain number of trophies were distributed among the players of a cricket act total number of trophies actually got 4 times the average number of trophies the in the cricket academy.	
1 0 20	
2 0 17	
3 🔾 16	
4 🔾 21	
FeedBack	■ Bookmark
	م Answer key/Solution
Q.89 Ten men working together can do a certain work in 56 days. If on the first day, or day, two men join him; on the third day, three men join them, and so on, with exact day, then find the number of days in which the work will get completed.	
1 0 10	
2 0 14	
3 20	
4 🔾 25	
FeedBack	■ Bookmark
	م Answer key/Solution

Q.90 If the point of tangency, between the incircle of a triangle and one of the sides of the triangle into two segments of length 1 cm and 5 cm, then find the measure (in cm) of the lewest when the inradius measures 2 cm.	
1 0 19	
2 25	
3 • 29	
4 🔾 34	
FeedBack	■ Bookmark
	م Answer key/Solution
Q.91 In how many ways can three girls and four boys be seated in a row comprising seven chair both the extreme positions and no two girls occupy adjacent positions?	s, such that boys occupy
1 0 100	
2 0 121	
3 🔾 144	
4 🔾 150	
FeedBack	■ Bookmark
	م Answer key/Solution
Q.92 John orders 5 pairs of black gloves and some pairs of blue gloves. The price of the black gmore than that of the blue gloves. When the order was filled, it was found that the number colors had been interchanged. This increased the bill by 2/9 times. Find the ratio of the nut to the number of pairs of blue gloves in the original order.	of pairs of gloves of the two
1 01:3	
2 0 2:3	
3 0 1:6	

4 🔾 2 : 1	
FeedBack	■ Bookmark
	≪ Answer key/Solution
	2016 to 2017, and then from 2017 to 2018, it decreased by s than that of in 2016, then the population of the village in 2017?
FeedBack	■ Bookmark
	م Answer key/Solution
which $f(x) = g(x) = 0$?	- 27x - 15, then how many real values of x are possible for ■ Bookmark
FeedBack	
	م Answer key/Solution
Q.95 ABC is a right angle triangle, right angled at B. The altitude are drawn at AB and BC meeting them at X and Y respection.	e from B is drawn to meet AC at D. From D, perpendiculars vely. If AB : BC = 5 : 4, then what is the ratio of DX to DY?
1 04:5	
2 0 5 : 4	
3 25 : 16	
4 0 16:25	
FeedBack	■ Bookmark

Q.96				
What can be said about $(\log_3 x)^2 - 21 \log_3 x = 200 \log_{\sqrt{x}} \frac{1}{3}$?				
1 O It has three real integral roots				
2 O It has only one real root				
3 O It has three real roots out of which two are integers.				
4 O It has three real roots out of which one is repeated and not an integer				
FeedBack	■ Bookmark			
	& Answer key/Solution			
Q.97 What is the sum of all possible values of 'p' for which the number '28394p19673q87' is diviany odd number from 1 to 9?	isible by 11, where q can be			
FeedBack	■ Bookmark			
	م Answer key/Solution			
Q.98 Raj throws a biased dice, such that the probability of occurring a prime number is 5/8, the probability of occurring a composite number is 1/4, and the probability of occurring an odd number is 7/12. If Raj threw the same dice twice, then what is the probability that the product of the numbers that turned up is two?				
1 0 1/24				
2 0 1/27				
3 O 3/35				
4 0 1/42				
FeedBack	■ Bookmark			
	م Answer key/Solution			

Q.99 How many positive integral solutions for triplet (x, y, z) exists where x, y, z \leq 5 and x + (-1) ^z	y = 2z?	
1 0 7		
2 🔾 8		
3 🔾 9		
4 🔍 10		
FeedBack	■ Bookmark	
	م Answer key/Solution	
Q.100 In triangle PQR, PQ = 12, QR = 16, PR = 20 and QS is the altitude from Q to PR. If a circle is radius QS, such that it cuts PQ at U and QR at T, then find the ratio of PU and TR.	drawn with center Q and	
1 02:9		
2 🔾 3 : 5		
3 0 4:9		
4 🔾 3 : 8		
FeedBack	■ Bookmark	
	م Answer key/Solution	