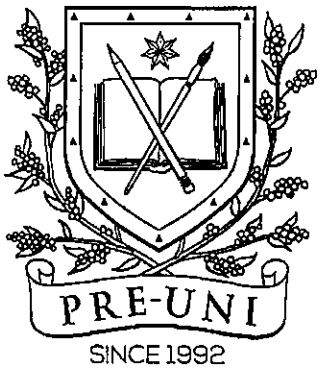


Pre-Uni
New College

Term 4

Thinking Skills
Advanced

Week 3

Thinking Skills Advanced – Term 4 Week 3

Name: _____

Class: _____ **Room:** _____

Branch: _____

Detect Reasoning Errors: Analogies and Anecdotes

Sample Questions

1 In a city, at least 80% of vehicles are equipped with automatic driving technology. It is reported that 90% of accidents involving vehicles in the city are caused by human error.

Carlos: "If we randomly select 45 000 vehicles in the city, only 9 000 of them will not have automatic driving technology."

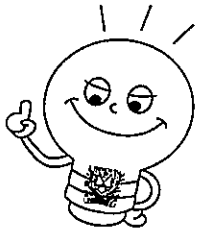
Diana: "All accidents involving vehicles without automatic driving technology are caused by human error."

If the information in the box is true, whose reasoning is correct?

A Carlos only
B Diana only
C Both Carlos and Diana
D Neither Carlos nor Diana

Tips for This Question

Evaluate Carlos's claim by calculating the vehicles without automatic technology based on the given information. Also, consider if Diana is correct, only if there is clear evidence linking all accidents without automatic technology to human errors. Be thorough in examining their assertions.



Your Answer:

Write Your Solution:

2 Emily and Sarah have to catch a train to make it to their workplace by 8:30 AM. It takes Emily 20 minutes to arrive at her destination, while Sarah needs 7 minutes longer than Emily.

Natalie: "Sarah sets off from her home at 8:05 AM, which means she will get to work on time."

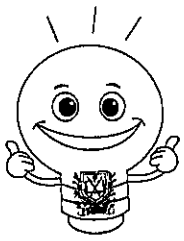
Daniel: "Emily does not arrive to work late, which indicates she must have left her home exactly at 8:10 AM."

If the information in the box is true, whose reasoning is correct?

A Natalie only
B Daniel only
C Both Natalie and Daniel
D Neither Natalie nor Daniel

Tips for This Question

In this question, evaluate the reasoning based on the time each person needs to reach their destination from home, according to the information given. Compare the departure times purported by Natalie and Daniel with these timeframes to judge if Emily and Sarah could arrive at work on time. Be wary of assumptions that aren't supported by the stated details.



Your Answer:

Write Your Solution:

☞ You can check the answer with solution on Page 21.

Practice Questions

3

The skills required for playing piano, guitar, and violin have significant overlaps.

- Anyone who can play the piano can also play the guitar.
- Anyone who can play the piano can also play the violin.
- Not everyone who can play the guitar can play the piano.
- Anyone who can play the violin can also play the piano.

Jake: "Laura has been playing the violin for years. She will have no trouble playing the guitar."

Sophie: "Josh is unable to play the piano. He won't be able to play the guitar."

If the information in the box is true, whose reasoning is correct?

A Jake only
B Sophie only
C Both Jake and Sophie
D Neither Jake nor Sophie

4

Even though many amusement park rides are extremely thrilling, they are typically very sensitive to weather conditions. If there's an indication of a storm or heavy rain, these rides often shut down, even if there are still many people waiting in line.

Marco: "There was a storm warning when we were at the amusement park. So, there's a good chance many rides might shut down."

Isabella: "There's a shut down ride at the amusement park we visited. That must have been because of a storm warning."

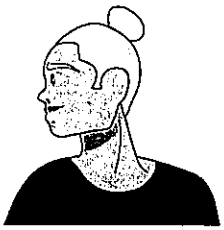
If the information in the box is true, whose reasoning is correct?

A Marco only
B Isabella only
C Both Marco and Isabella
D Neither Marco nor Isabella

5

The Annual International Coding Challenge is organised once every year. The competition has four ways to qualify:

- Any team that secures a top three position in the regional hackathon qualifies automatically.
- The team which won the previous year's Coding Challenge qualifies automatically, provided the team composition remains the same.
- One team can qualify as a 'wild card': this team is chosen randomly from all teams that failed to qualify by the above two methods.
- Teams that have made a significant open-source contribution in the past year can also qualify.



Kate and Vincent are in the same team, and they are trying to qualify for this year's challenge.

Kate: "We only secured the fourth position in our regional hackathon. We won the challenge last year, but one of our team members has moved. The only way we can qualify is if we manage to get him back or make a significant open-source contribution."

Vincent: "Even if we can not bring him back, because of our significant open-source contribution in the past year, we may have a chance to be qualified for the competition."

If the information in the box is true, whose reasoning is correct?

A Kate only
B Vincent only
C Both Kate and Vincent
D Neither Kate nor Vincent

6

The UN Climate Change Body has introduced a new voting policy to select projects for funding. Each project aims to reduce global greenhouse gas emissions, but the resources are limited and only one project can be funded at a time. Every member of the body gets one vote and everyone must use their vote. The project that gets the most votes is the one that is funded. This year, there are 35 members in the body, and there are 7 projects to choose from.

Alexander: "The project that we fund will need to get at least 6 votes."

Maria: "If a project gets 18 votes, then we will definitely be funding it."

If the information in the box is true, whose reasoning is correct?

A Alexander only
B Maria only
C Both Alexander and Maria
D Neither Alexander nor Maria

7

The municipal council of Green Town has added a new regulation regarding the use of groundwater. If the groundwater level falls below 30 feet, the council would impose strict water restrictions. As of last week, the council announced water restrictions for the entire town.

Bill: "This must mean that our groundwater level is now below 30 feet."

Cindy: "This could also mean that there is less than 50% of groundwater remaining compared to ten years ago."

If the information in the box is true, whose reasoning is correct?

A Bill only
B Cindy only
C Both Bill and Cindy
D Neither Bill nor Cindy

8

The World Health Organisation has recently changed its guidelines for daily sugar consumption. It now suggests that adults should limit their daily intake of free sugars to less than 10% of their total energy intake. For additional health benefits, it's recommended that free sugars make up less than 5% of total energy intake.

Adam: "Since I eat a lot of fresh fruits, which are high in sugar, I might have to cut back on fruits to meet the new WHO guidelines."

Ben: "If I cut back on drinking soda and switch to sugar-free drinks, I will be following the new WHO guidelines."

If the information in the box is true, whose reasoning is correct?

A Adam only
B Ben only
C Both Adam and Ben
D Neither Adam nor Ben

9

The school has decided to employ a survey this year to see how many students prefer eating in the cafeteria compared to bringing their own lunch. If sixty per cent or more of the students chose the cafeteria, the school would offer a wider variety of food in the cafeteria. The school didn't increase the variety of food this year.

Oscar: "Since the school didn't offer a wider variety of food, that must mean less than sixty per cent of the students chose the cafeteria."

Eliza: "That must also mean that there were more than sixty per cent of students who preferred bringing their own lunch."

If the information in the box is true, whose reasoning is correct?

A Oscar only
B Eliza only
C Both Oscar and Eliza
D Neither Oscar nor Eliza

10

To ensure security and proper documentation for international travel, airlines have a strict policy. According to this policy, they will only allow passengers to board international flights if they meet one of two criteria: they have a valid passport, or they possess a special diplomatic status that allows them to travel without a conventional passport.

Oliver: "I have a valid passport but don't possess a special diplomatic status. I won't be allowed to board an international flight."

Sophia: "I don't have a valid passport, but I have a special diplomatic status issued to me on 1st January 2020 with a validity of 710 days. So, I will be allowed to board an international flight on 31st December 2021."

If the information in the box is true, whose reasoning is correct?

A Oliver only
B Sophia only
C Both Oliver and Sophia
D Neither Oliver nor Sophia

11

To be eligible for the Senior Citizens Savings Scheme, a government-backed initiative in Country X, an individual must be a resident of Country X and be at least 60 years of age.

Jacob: "I am a resident of Country X, but I am only 55 years old. I am ineligible for the Senior Citizens Savings Scheme."

Emily: "I am not a resident of Country X, but I am 65 years old. I believe I am eligible for the Senior Citizens Savings Scheme."

If the information in the box is true, whose reasoning is correct?

A Jacob only
B Emily only
C Both Jacob and Emily
D Neither Jacob nor Emily

12

To become a certified tour guide in the state of Sunshine, an individual must either have extensive experience leading tours in the state's mountainous regions or be knowledgeable about the state's coastal ecosystems.

Ava: "I have extensive experience leading tours in the state's mountainous regions but know nothing about the state's coastal ecosystems. I don't believe I can become a certified tour guide."

Leo: "I have no experience leading tours in the state's mountainous regions, but I am quite knowledgeable about the coastal ecosystems of my area. I think I will qualify for the certification."

If the information in the box is true, whose reasoning is correct?

A Ava only
B Leo only
C Both Ava and Leo
D Neither Ava nor Leo

13

The State Park's Conservation Agency has a stringent selection process for appointing Park Rangers. Applicants must either have a degree in environmental sciences or at least five years of experience working in wildlife conservation. Those who fulfil either criterion are considered for the position.

Alex: "I do not hold a degree in environmental sciences, but I have been involved in wildlife conservation initiatives for the past six years. However, I am sure I am eligible to apply for the Park Ranger position."

Charlotte: "I recently graduated with a degree in environmental sciences but have no formal experience in wildlife conservation. I'm certain I am eligible to apply for the Park Ranger position."

If the information in the box is true, whose reasoning is correct?

A Alex only
B Charlotte only
C Both Alex and Charlotte
D Neither Alex nor Charlotte

14

To qualify for the Young Entrepreneur Grant in Nation Z, a person must be a resident of Nation Z and be under 30 years of age.

Benjamin: "I am a resident of Nation Z, but I am 35 years old. I don't think I am eligible for the Young Entrepreneur Grant."

Jessica: "I am not a resident of Nation Z, but I am 25 years old. I am confident I qualify for the Young Entrepreneur Grant."

If the information in the box is true, whose reasoning is correct?

A Benjamin only
B Jessica only
C Both Benjamin and Jessica
D Neither Benjamin nor Jessica

15

Whenever the battery level on a smartphone drops below 10%, a low battery warning message is displayed. When it reaches 5% or lower, the smartphone automatically goes into power-saving mode and restricts certain functions.

Raquel: "Since my smartphone is in power-saving mode, the battery level must be 5% or lower."

Steven: "I can still access all the functions on my smartphone, so the battery level must be above 10%."

If the information in the box is true, whose reasoning is correct?

A Raquel only
B Steven only
C Both Raquel and Steven
D Neither Raquel nor Steven

16

The coach of the team will select the player for the next match if he is fit and performed well in the previous tournament.

Maxwell: "My average score in the last tournament was 48 runs; I'll definitely be selected for the next match."

Warner: "I'm the fittest in the team; I'll also be selected for the next match."

If the information in the box is true, whose reasoning is correct?

A Maxwell only
B Warner only
C Both Maxwell and Warner
D Neither Maxwell nor Warner

17

In an ongoing football match, if a player receives a red card, they are immediately sent off the field and their team has to play with one less player. If a player receives a yellow card, it serves as a caution and too many yellow cards can result in a suspension.

Kye Rowles: "Since I received a red card, I will be suspended for the next match."

Riley McGree: "I have received three yellow cards so far this season, and one more will result in a suspension."

If the information in the box is true, whose reasoning is correct?

A Kye Rowles
B Riley McGree only
C Both Kye Rowles and Riley McGree
D Neither Kye Rowles nor Riley McGree

18

In order to get a driver's licence, individuals must be at least 16 years old and pass both a written and practical driving test.

Emma: "Since I am 15 years old, I am not eligible to apply for a driver's licence yet."

Jackson: "I have passed both the written and practical driving tests, so I am eligible to apply for a driver's licence."

If the information in the box is true, whose reasoning is correct?

A Emma only
B Jackson only
C Both Emma and Jackson
D Neither Emma nor Jackson

19

To qualify for the annual Timekeeper's Convention, participants must have studied at least three types of ancient timekeeping methods, restored a minimum of two mechanical clocks from the 1800s, and have had one of their restoration projects featured in a local museum or historical society.

Faye: "I have studied two types of ancient timekeeping methods and restored five mechanical clocks from the 1800s. One of my restoration projects was even featured in our local historical society. I will qualify for the Timekeeper's Convention."

Russell: "I have studied five types of ancient timekeeping methods this year and restored three mechanical clocks from the 1800s, so I believe I qualify for the Timekeeper's Convention."

If the information in the box is true, whose reasoning is correct?

A Russell only
B Faye only
C Both Russell and Faye
D Neither Russell nor Faye

20

FM radio provided an alternative way of listening to music without the need to purchase cassettes.

Nina: "The introduction of FM radio led to people no longer buying audio cassettes because they could now listen to their favourite music for free."

Victor: "Since FM radio has arrived, the audio cassettes market should have grown because people now have more platforms to listen to music."

If the information in the box is true, whose reasoning is correct?

A Nina only
B Victor only
C Both Nina and Victor
D Neither Nina nor Victor

Answer Solution of Sample Questions

1 In this problem, the task is to determine whose reasoning, Carlos's or Diana's, is correct based on the given information.

The key concept involved here is logical reasoning, or the ability to infer conclusions from a set of provided facts or conditions.

Carlos's reasoning is incorrect because he assumes exactly 20% (100% − 80%) of the vehicles lack automatic driving technology. From this assumption, he calculates that out of 45 000 vehicles, 20% or 9 000 will not have automatic driving technology (20% of 45 000 = 9 000). However, the problem states "at least 80%" have the technology, meaning the percentage without could be less than 20%, making Carlos's assumption and calculation incorrect.

Diana's reasoning is incorrect. She assumes that all accidents involving vehicles without automatic driving technology are caused by human error. However, the given information only states that 90% of accidents involving vehicles in the city are caused by human error, but it does not specify whether those vehicles have automatic driving technology or not.

Therefore, Option **D** is the correct answer.

2 In this problem, the task is to evaluate Natalie's and Daniel's reasonings regarding the arrival times of Emily and Sarah at their workplace.

The key concept involved here is logical reasoning, or the ability to infer conclusions from a set of provided facts or conditions.

Natalie's reasoning is incorrect because she states that Sarah leaves her home at 8:05 AM and will reach work on time. Given that it takes Sarah 20 + 7 = 27 minutes to reach work, she would get to work at 8:05 AM + 27 minutes = 8:32 AM, which is after the required time of 8:30 AM.

Daniel's reasoning is incorrect because he insists that Emily "must have left her home exactly at 8:10 AM". However, if Emily had left earlier and given it only takes her 20 minutes to reach work, she could have departed before 8:10 AM and still arrive on time. Daniel's statement implies a strict departure time, not considering the possibility of an earlier departure time.

Therefore, Option **D** is the correct answer.

Challenging Questions

1

If a team has green colours on their uniform, they must be representing Iceland.

Farah: "The members of the volleyball team have green face-paint on but an all-black uniform, so I don't think they represent Iceland."

Minnie: "That hockey team has green letters on their uniform so they must represent Iceland."

If the information in the box is true, whose reasoning is correct?

A Farah only
B Minnie only
C Both Farah and Minnie
D Neither Farah nor Minnie

2

To gain the best possible marks in the exam, you should begin revising early and be familiar with the different types of questions that could appear.

Emily: "I started revising early on and practised a range of different questions that could be in the exam. I can perform my best in the exam."

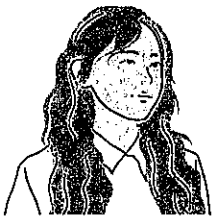
Melissa: "I am very familiar with the types of questions in the exam but I began revising later on. I can still achieve my personal best in the exam."

If the information in the box is true, whose reasoning is correct?

A Emily only
B Melissa only
C Both Emily and Melissa
D Neither Emily nor Melissa

3

For glue to be considered excellent, it must adhere to different types of surfaces without failure. Otherwise, it is considered average.



Eileen: "I used superglue to successfully attach acrylic to wood in my woodworking project last year. It hasn't fallen apart yet, so it is excellent glue."

Cody: "I used PVA glue to successfully bond my origami papers. It is not excellent glue."

If the information in the box is true, whose reasoning is correct?

A Eileen only
B Cody only
C Both Eileen and Cody
D Neither Eileen nor Cody

Finding Procedures: Simple Number Operations

Practice Questions

1 Two close friends, Jake and Ethan, decide to start a joint savings plan. For every dollar Jake saves, Ethan decides to save two dollars to accelerate their combined savings goal. After a few months, they calculate that the total amount they've saved is \$900.

If the money is divided according to the ratio they saved in, how much money does Jake have?

A \$150
B \$300
C \$450
D \$600

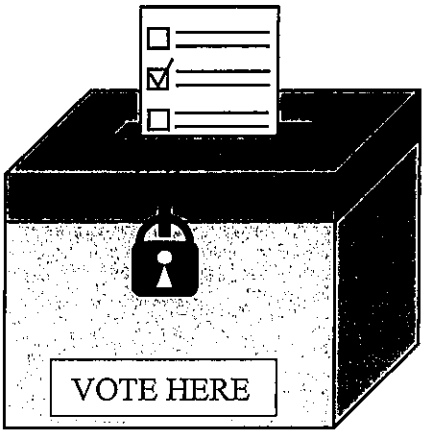
2 Robert, a wealthy entrepreneur, decides to distribute part of his fortune among his family: his wife, son, and daughter. He gives $\frac{1}{2}$ of his fortune to his wife. He then gives $\frac{1}{3}$ of the remaining fortune to his son and $\frac{1}{4}$ of what remains after that to his daughter. After these distributions, he has \$1 500 000 left.

How much money did Robert originally have before he started giving it away?

A \$4 000 000
B \$4 500 000
C \$5 000 000
D \$6 000 000

3 In a high school election, two candidates competed for the position of student body president. 15% of the votes cast were deemed invalid for various reasons. The first candidate secured 55% of the total valid votes. The total number of votes cast was 15 200.

What was the number of valid votes received by the second candidate?



A 4 898
B 5 418
C 5 814
D 7 301

4 In the heart of Fruitville, a bustling town known for its fruit markets, there lives two close friends, Apple and Berry. The ratio of Apple's income to Berry's income is 3 : 4, and the ratio of their respective expenditures is 2 : 3. After their monthly expenses, both friends save exactly 30 kg of fruit each.

Which of the following options will be the monthly income (in kg of fruits) of Apple and Berry?

A Apple – 90 kg, Berry – 120 kg
B Apple – 120 kg, Berry – 160 kg
C Apple – 150 kg, Berry – 200 kg
D Apple – 180 kg, Berry – 240 kg

5 John is an adventurous traveller who loves exploring different water bodies with his motorboat. One summer afternoon, he decides to make a journey on a river. He notices that when he travels downstream, his boat speed is 27 km/h, but while returning upstream, it reduces to 17 km/h.

Which of the following would be the speed of the stream?

A 5 km/h
B 7 km/h
C 10 km/h
D 20 km/h

6 Sophie runs a small bakery in her town. She buys raw materials to make a batch of 100 cupcakes for $50. She sells each cupcake at $1.50. Due to a local fair, she could only sell 80 cupcakes, and the remaining cupcakes could not be sold and were wasted.

What would be the profit made by Sophie?

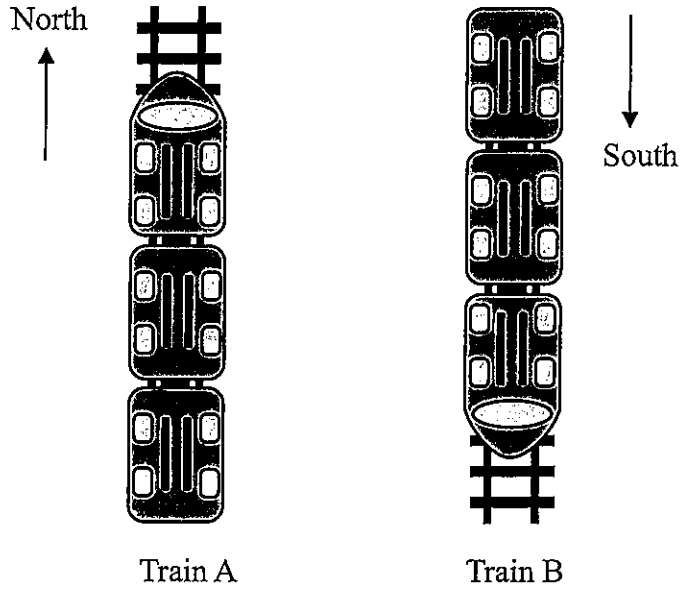
A $50 profit
B $70 profit
C $90 profit
D $110 profit

7 In a town named "Evergreen", the residents have a yearly tradition of planting trees in the town park on Earth Day. This year, they decided to plant both flowering and non–flowering trees. The number of non–flowering trees was six less than four times the number of flowering trees.

If the total number of trees planted in the town was 124, how many flowering trees were planted in the town park?

A 13
B 16
C 24
D 26

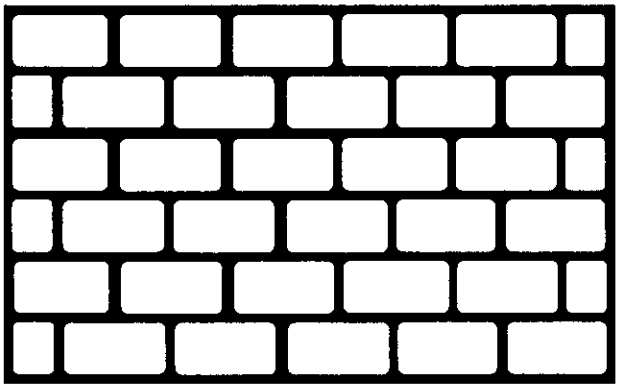
8 Two high–speed bullet trains, Train A and Train B, run on parallel tracks. Train A, which is 252 m long, is running north at a speed of 144 km/h. Train B, 198 m long, is running south at 108 km/h.



How long will they take to be completely clear of each other from the moment they meet?

A 5.43 seconds
B 6.43 seconds
C 7.43 seconds
D 8.43 seconds

9 James is planning to paint a wall in his house. The wall is 40 feet long and 8 feet high. He can paint 2 square feet of the wall in one minute. However, James takes a 15–minute break after every 30 minutes of painting.



8 feet

40 feet

(NOT TO SCALE)

How long will it take James to finish painting the entire wall?

A 160 minutes
B 225 minutes
C 235 minutes
D 245 minutes

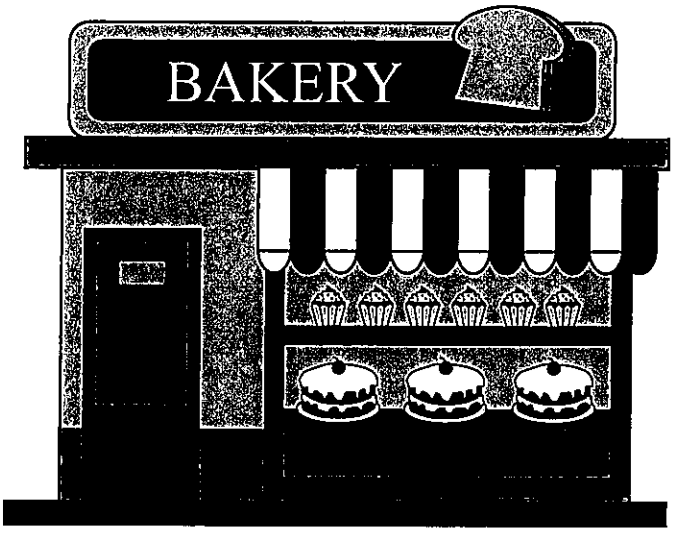
10 Emily is organising a charity bake sale. She plans to bake two types of cookies: chocolate chip cookies and oatmeal raisin cookies. Emily has 4 pounds of chocolate chips and 3 pounds of raisins available for baking. Each batch of chocolate chip cookies requires a quarter pound of chocolate chips, while each batch of oatmeal raisin cookies requires a third pound of raisins.

What is the maximum number of batches of chocolate chip and oatmeal raisin cookies that Emily can bake using the available ingredients?

A Emily can bake a maximum of 9 batches of chocolate chip cookies and 16 batches of oatmeal raisin cookies.
B Emily can bake a maximum of 16 batches of chocolate chip cookies and 9 batches of oatmeal raisin cookies.
C Emily can bake a maximum of 9 batches of chocolate chip cookies and 8 batches of oatmeal raisin cookies.
D Emily can bake a maximum of 8 batches of chocolate chip cookies and 9 batches of oatmeal raisin cookies.

11 Emily runs a bakery in her hometown. The cost of raw materials for making a cake includes 30% on flour, 20% on sugar, 15% on milk, 10% on butter, and the remaining 25% on eggs and decorations. Emily noticed that the price of flour has increased by 20% and the price of butter has decreased by 10%.

If Emily used to spend \$500 on raw materials to make a cake, how much would it cost now, considering the changes in the prices of flour and butter?



A \$150
B \$355
C \$525
D \$552

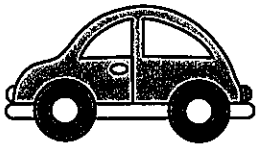
12 Laura and Martin operate a boutique. They sell two types of shirts – casual and formal. On a busy Saturday, they sold a total of 100 shirts. Additionally, they observed that for every 2 casual shirts sold, they sold 3 formal shirts.

How many casual and formal shirts did they sell?

A 35 casual shirts and 65 formal shirts
B 40 casual shirts and 60 formal shirts
C 45 casual shirts and 55 formal shirts
D 30 casual shirts and 70 formal shirts

13 Jack owns a small toy store. He purchased a consignment of 100 remote–controlled cars at a cost of \$50 each. To make a profit, he increased the price by 40%. However, he could not sell a single car and decided to offer a discount of 10%.

How many remote–controlled cars did he manage to sell after offering the discount if he used all the money from the sales to purchase 75 new–model remote–controlled cars at a cost of \$84 each?



A 84 remote–controlled cars
B 96 remote–controlled cars
C 100 remote–controlled cars
D 120 remote–controlled cars

14 Eva runs a small bakery. She makes two kinds of pastries: strawberry and chocolate. Each strawberry pastry requires 25 grams of sugar and 15 grams of flour. On the other hand, each chocolate pastry requires 30 grams of sugar and 10 grams of flour. One day, Eva realises she has only 1 kg of sugar and 800 grams of flour left in her bakery. To utilise her resources optimally, she decides to make as many pastries as possible.

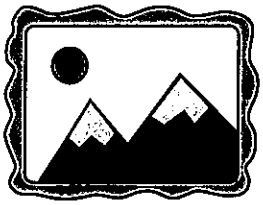
If she ended up making 15 more chocolate pastries than strawberry pastries, how many of each kind did she bake?

A 20 strawberry pastries and 35 chocolate pastries
B 25 strawberry pastries and 10 chocolate pastries
C 10 strawberry pastries and 25 chocolate pastries
D 40 strawberry pastries and 35 chocolate pastries

15 A local art dealer, Lucas, purchases 10 antique vases and 15 paintings. He spends \$900 for each vase and \$600 for each painting. Due to an unexpected drop in the local art market, Lucas had to sell the vases at a loss of 15% but was able to sell the paintings at a profit of 30%.

After selling all the vases and paintings, what is Lucas's overall percentage profit or loss on his entire investment?

\$900

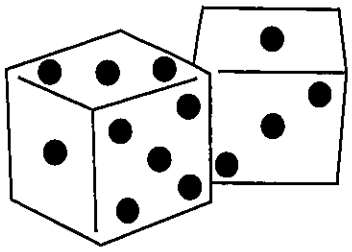


\$600

A 7.5% profit
B 7.5% loss
C 8.75% profit
D 8.75% loss

16 Rita is playing a board game where she can roll two dice. Each die has six sides numbered from 1 to 6. If the sum of the two numbers rolled is even, Rita gains 10 points, but if the sum is odd, she loses 5 points. Rita rolls the two dice 20 times and ends up with a total score of 50 points.

How many times did she roll an even sum?



A 10
B 11
C 12
D 13

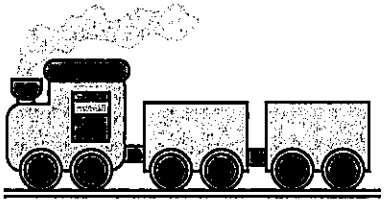
17 Linda is participating in a quiz competition where she receives different scores for each correct and incorrect answers. For each correct answer, she gains 3 points, and for each incorrect answer, she loses 2 points. In a round of 30 questions, Linda's total score is 65.

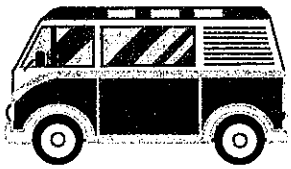
If Linda answered all the questions, how many questions did she answer correctly?

A 14
B 18
C 22
D 25

18 On a grand adventure to explore a new land, a traveller embarked on a journey using various modes of transportation. His expedition involved a mix of train rides, bus journeys, car drives, and even some walking.

Given that he travelled two–fifths of his journey by train, one–third by bus, one–quarter by car and the remaining 3 km on foot, what was the length of his total journey?





A 145 km
B 150 km
C 160 km
D 180 km

19 In the scenic landscapes of a cross–country road trip, a traveller embarked on a remarkable journey spanning 555 kilometres. The expedition began with a smooth car ride at a speed of 60 km/h. As the traveller continued on this adventurous path, something intriguing unfolded. The speed of the car was increased by 15 km/h, and the rest of the journey was completed, taking a total of 8 hours.

What is the time taken to cover the initial part of the journey at a speed of 60 km/h?

A 3 hours
B 4 hours
C 5 hours
D 6 hours

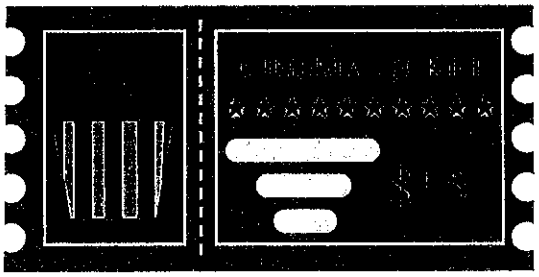
20 In the heart of a strategically positioned fortress, a garrison of 1 200 brave soldiers stood guard, ready to defend their realm. With careful planning, provisions were gathered to sustain them for a challenging journey ahead. The provisions were originally calculated to last for 28 days. After an initial 4 days, a group of soldiers was dispatched to reinforce another fort. Remarkably, the remaining soldiers managed to make their rations last for the next 32 days.

How many soldiers were sent to reinforce the other fort?

A 150 soldiers
B 200 soldiers
C 250 soldiers
D 300 soldiers

Challenging Questions

1 For Bill's birthday party he wished to invite a group of his friends to watch a movie with him at the theatre. However, the ticket is now 15 dollars per person. His father had only given him the exact amount of money a week ago when there was an ongoing promotion: if you have 10 or more people, everyone gets a 3−dollar discount. Because it ended, Bill now must invite 3 fewer people.



How many people are going now (including Bill)?

A 7
B 9
C 10
D 12

2 A fashion label is trying to determine the cost to produce a dress. They employ 3 designers at \$2 500 each per week, 1 pattern cutter at \$1 500 a week and 2 models at \$2 000 each per day. All employees, excluding models, are employed every working day of the month. Models are paid for days that they walk the runway. This month, they walk the runway 4 days each. The fashion house produces a new style of dress with a material cost of \$29 per unit.

What is the cost of a single dress if the label produces 250 units? (Assume there are 4 weeks in a month.)

A \$215
B \$223
C \$237
D \$245

3 Yuma and Trent are racing cars. There are 2 speeds at which the car can go. The first speed is slow at 30 km/h and the second speed is fast at 90 km/h. The car cannot go at the faster speed for the entire race or else it will burn out so Yuma and Trent adopt different tactics. Yuma goes slow for half the time while Trent goes slow for half the distance.

Who wins the race and by how much if Yuma finishes the race in 30 mins?

A Trent by 6 mins
B Yuma by 6 mins
C Trent by 10 mins
D Yuma by 10 mins

More Practice questions are available for HOMEWORK on the Cyberschool.

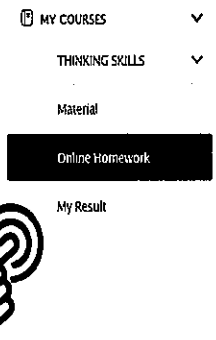
Step 1.

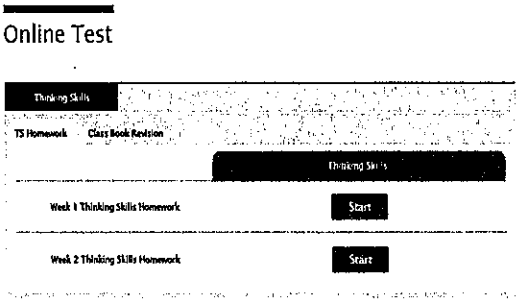
Log in to Cyberschool website.

www.cyberschool.com.au

Step 2.

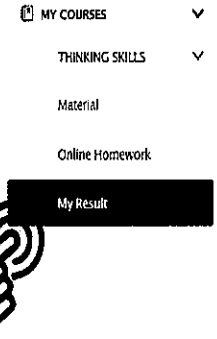
TS Homework will be found at MY COURSES > THINKING SKILLS > Online Homework > TS Homework. Each module test will open every Saturday. Click 'Start' button to begin the test.

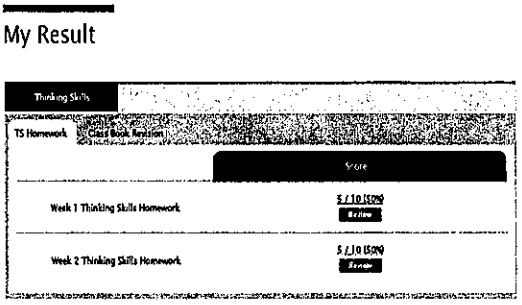




Step 3.

Results will be found at MY COURSES > THINKING SKILLS > My Result > TS Homework. After the test, you will be able to check your score and review the questions.





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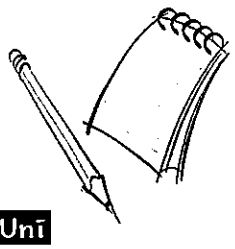

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