GMAT GRE | TOP ONE PERCENT 99th PERCENTILE CLUB

GMAT™ Focus Edition

by Sandeep Gupta

GMAT™ Focus Edition

Integrated Reasoning

Orientation Session

(part of the Data Insights Section)

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Integrated Reasoning

Score report analysis

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– Time Management & Performance

This chart shows your **response time in minutes**, including any review time, for each question within Data Insights. ! average allotted time per question for this section. **Use this chart to see how you managed your pacing as well as question type.** Explain This Chart

Question ▲	Response Time (Minutes)	Performance	Content Domain	Question Type
1	1.3	Correct	Math Related	Data Sufficiency
2	2.3	Correct	Math Related	Two-part analysis
3	1.5	Correct	Non-Math Related	Graph and Table
4	2.4	Correct	Non-Math Related	Data Sufficiency
5	4.7	Correct	Non-Math Related	Multi-source reasoning
6	0.5	Incorrect	Non-Math Related	Multi-source reasoning
7	1.7	Correct	Non-Math Related	Multi-source reasoning
8	1.4	Correct	Math Related	Data Sufficiency
9	3.1	Incorrect	Math Related	Two-part analysis
10	2.1	Incorrect	Math Related	Data Sufficiency
11	5.4	Correct	Math Related	Graph and Table
12	2	Correct	Math Related	Data Sufficiency
13	1.3	Correct	Non-Math Related	Data Sufficiency
14	1.2	Correct	Non-Math Related	Two-part analysis
15	2	Correct	Math Related	Graph and Table
16	3.6	Correct	Non-Math Related	Graph and Table
17	1.4	Incorrect	Non-Math Related	Data Sufficiency
18	1.7	Incorrect	Math Related	Graph and Table
19	2.3	Incorrect	Non-Math Related	Two-part analysis
20	2.1	Incorrect	Math Related	Data Sufficiency

DI Section	
Data Sufficiency	8 Questions
Two-part Reasoning	4 Questions
Graph and Table	5 Questions
Multi-source Reasoning	3 Questions

10 Q: Non-math related
(Mostly CR + a lot of reading / deciphering information quickly)

10 Q: Math related
(can be from any of the Quant topics – Arithmetic, algebra, Stats, Probability, but the fundamental skill being tested is READING!)

1. Your reading skills really matter a lot in the DI section (reading and interpreting really, really fast). If you can read really fast and extract all the relevant information quickly from a jungle (web) of just too much information (a lot of which is irrelevant information), and interpret / analyze all the relevant information (QUICKLY), you can nail this section.

2. This section is mostly about Reading and Reasoning (at least 75%) and very little about Math (the math involved is just too, too basic). Even in the Math-based questions, the skill tested is predominantly **Reading**, not **Math.**

3. **This is why:** DI section is taught at the end at **Top-One-Percent** (it requires both Verbal and Quant Skills)

Question	Response Time (Minutes)	Performance	Content Domain	Question Type
1	2.7	Correct	Math Related	Graph and Table
2	2	Correct	Math Related	Graph and Table
3	4.8	Correct	Math Related	Two-part analysis
4	2.1	Correct	Math Related	Data Sufficiency
5	5.3	Incorrect	Non-Math Related	Multi-source reasoning
6	0.7	Correct	Non-Math Related	Multi-source reasoning
7	2.2	Incorrect	Non-Math Related	Multi-source reasoning
8	1.5	Correct	Non-Math Related	Data Sufficiency
9	2.4	Correct	Non-Math Related	Two-part analysis
10	1.8	Correct	Math Related	Data Sufficiency
11	1.6	Incorrect	Non-Math Related	Data Sufficiency
12	2.7	Incorrect	Non-Math Related	Graph and Table
13	0.8	Correct	Math Related	Data Sufficiency
14	3.1	Correct	Math Related	Two-part analysis
15	1.4	Correct	Math Related	Data Sufficiency
16	2.3	Incorrect	Non-Math Related	Data Sufficiency
17	3.3	Correct	Math Related	Graph and Table
18	1.1	Correct	Math Related	Data Sufficiency
19	1.3	Incorrect	Non-Math Related	Two-part analysis
20	-	Not Answered	Non-Math Related	Graph and Table

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Data Insights

IR + DS = DI

DS questions are now going to be asked in the DI Section

New for GMAT™ Exam – Focus Edition!

The Data Insights section measures candidates' ability to analyze and interpret data and apply it to real-world business scenarios. With the GMAT™ Exam – Edition's updated test design, Data Insights leverages Integrated Reasoning and Data Sufficiency question types to measure a newly calibrated digital and literacy dimension—one of the most relevant and in-demand skills in business today.

It is composed of 20 questions that ask you to assess how multiple sources and types of information – including graphic, numeric, and verbal – relate to or another and can be leveraged to make informed decisions. Questions may require math, data analysis, verbal reasoning, or all three. You can use an on-s calculator while working on this section.

The question types you'll find on this section are:

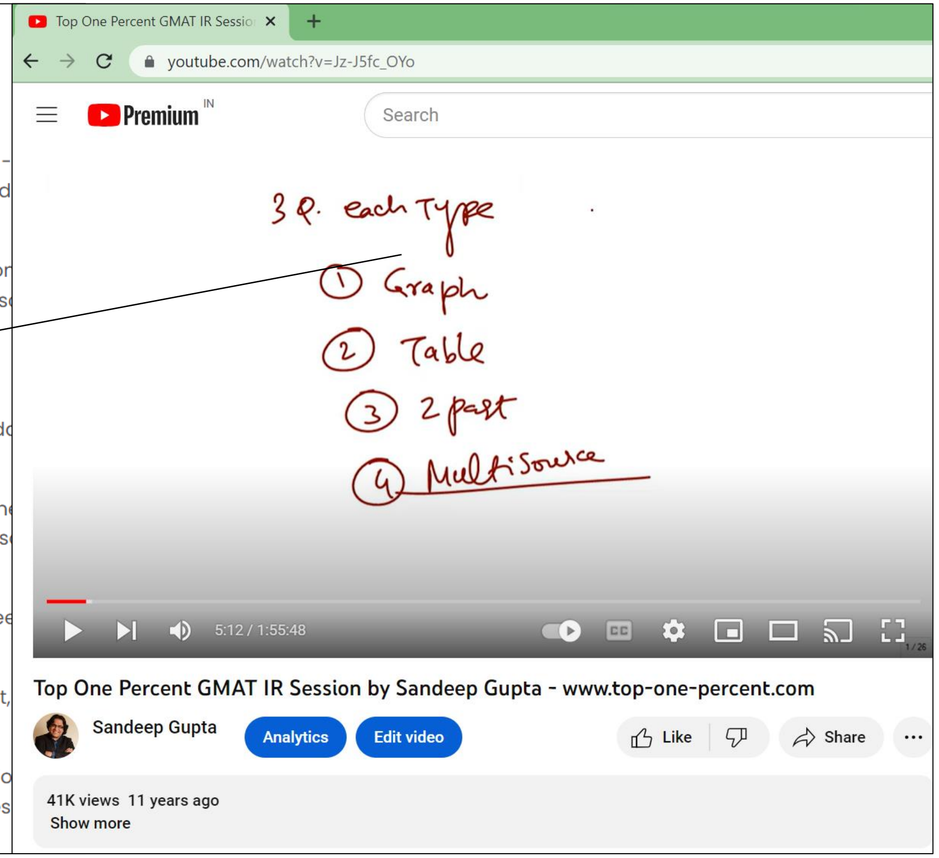
Data Sufficiency: Measures your ability to analyze a quantitative problem, recognize which data is relevant, and determine at what point there is enough da solve the problem.

Multi-Source Reasoning: Measures your ability to examine data from multiple sources including text passages, tables, graphics, or some combination of the —and to analyze each source of data carefully to answer multiple questions. Some questions will require you to recognize discrepancies among different s of data, while others will ask you to draw inferences, or require you to determine whether data is relevant.

Table Analysis: Measures your ability to sort and analyze a table of data, similar to a spreadsheet, in order to determine what information is relevant or mee certain conditions.

Graphics Interpretation: Measures your ability to interpret the information presented in a graph or other graphical image (scatter plot, x/y graph, bar chart, chart, or statistical curve distribution) to discern relationships, and make inferences.

Two-Part Analysis: Measures your ability to solve complex problems. They could be quantitative, verbal, or some combination of both. The format is intentio versatile to cover a wide range of content. Your ability to evaluate trade-offs, solve simultaneous equations, and discern relationships between two entities measured.



https://www.youtube.com/watch?v=Jz-J5fc_OYo

Important note: This section is **not new at all.** I have been teaching all this since 2012. Check my video (link above) of exactly the same parts that was recorded in 2012. Earlier this was called **IR** (Integrated Reasoning); now it is called **DI** (Data Insights). Also, DS (Data sufficiency) has been part of the GMAT for the last 30+ years, so again there is no change. **Nothing new!**

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Some observations about the DI section

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1. The number of questions of each type (DS, Two-part, Graph and Table, and MSR) is the same for all the candidates.
2. Your reading skills really matter a lot in the DI section (reading and interpreting really, really fast). If you can read really fast and extract all the relevant information quickly from a jungle (web) of just too much information (a lot of which is irrelevant information), and interpret / analyze all the relevant information (QUICKLY), you can nail this section.
3. This section is mostly about Reading and Reasoning (at least 75%) and very little about Math (the math involved is just too, too basic). Even in the Math-based questions, the skill tested is predominantly **Reading**, not **Math**.
4. **This is why:** DI section is taught at the end at **Top-One-Percent** (it requires both Verbal and Quant Skills)
5. MSR (Multi-source reasoning) questions (non-math type) waste a lot of time, so it is advisable to put the three questions in **Review / Edit** in the beginning.

A very **strong suggestion** to tackle the **DI** section really effectively

If you solve a lot of LSAT RC and CR in long sittings, you can nail this section. The skill being tested is Reading and Analyzing really fast (and very little of very basic Math – most math-based questions involved Percentage / Median-Mean concepts).

Unique features of the DI Section

1. On-screen calculator
2. Table sorting option / dropdown menu in graphs / switching between multiple tabs in MSR
3. Each main question can have up to three sub questions. You must get all sub questions correct within to deserve any credit. There are no partial credits.
4. There are up to 3 sub questions within a question; you have to get all three right to earn any point. There are no partial credits
5. In addition to being an extension of RC, this section is an extension of CR and (very basic) Quant
6. If you don't practice a lot just before the exam, you are most likely to face a "time-crunch" situation in this section on the test day. On the other hand, practicing a lot of questions too early in your preparation is NOT recommended.
7. This section is ideally practiced on a portal with all features (table sorting / switching between multiple tabs / clicking on dropdown menus); to this effect, try our portal (check the diagnostic test).

IR Question Type 1

Tables

The Consumer Price Index (CPI) measures the average prices of goods and services purchased by consumers. In the United States, the CPI-U calculates the CPI for all urban consumers. The CPI-U is calculated based on prices of food, clothing, shelter, fuels, transportation fares, charges for doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. All taxes directly associated with the purchase and use of items (such as, in the United States, sales taxes) are included in the index. An increase in CPI-U by a certain fractional amount means an increase by that fractional amount in overall prices within the relevant category. For analyzing general price trends in the economy, seasonally adjusted prices are usually preferred over unadjusted prices because adjusting eliminates the effect of changes that normally occur at the same time and in about the same magnitude every year—such as price movements resulting from climatic conditions, production cycles, model changeovers, and holidays.

Percent Changes in CPI for All Urban Consumers (CPI-U), US City Average

Category	Seasonally adjusted changes from preceding month							Unadjusted 12 months ended Sep 2010
	Mar 2010	Apr 2010	May 2010	Jun 2010	Jul 2010	Aug 2010	Sep 2010	
All items	0.1	–0.1	–0.2	–0.1	0.3	0.3	0.1	1.1
Food (all)	0.2	0.2	0	0	–0.1	0.2	0.3	1.4
Food (at home)	0.5	0.2	0	–0.1	–0.1	0	0.3	1.4
Food (away from home)	0	0.1	0.1	0.1	0	0.3	0.3	1.4
Energy (all)	0	–1.4	–2.9	–2.9	2.6	2.3	0.7	3.8
Gasoline (all types)	–0.8	–2.4	–5.2	–4.5	4.6	3.9	1.6	5.1
Fuel oil	0.7	2.3	–1.4	–3.2	–1.6	0.9	0.8	11.8
Energy services	1.4	–0.5	–0.5	–1.6	0.8	0.4	–0.8	1.5
Electricity	2.1	0.7	–0.4	–2.2	0.5	0.2	–0.3	1.1
All items less food and energy	0	0	0.1	0.2	0.1	0	0	0.8
New vehicles	0.1	0	0.1	0.1	0.1	0.3	0.1	2.1
Used cars and trucks	0.5	0.2	0.6	0.9	0.8	0.7	–0.7	12.9
Apparel	–0.4	–0.7	0.2	0.8	0.6	–0.1	–0.6	–1.2
Services less energy services (all)	0.1	0.2	0.1	0.1	0.1	0	0.1	0.8
Shelter	–0.1	0	0.1	0.1	0.1	0	0	–0.4
Transportation services	0.4	0.4	0.4	0	0	0.1	0.3	3.0
Medical care services	0.3	0.3	0	0.4	0	0.2	0.8	3.7

For each of the following, select *Yes* if the statement is inferable from the given information. Otherwise select *No*.

1. The changes in seasonally adjusted prices for 'used cars and trucks' between March 2010 and September 2010 were in most cases less in percentage terms than the changes in seasonally adjusted prices of 'new vehicles' for the same period. **(Y/N)**

2. The seasonally adjusted CPI-U for 'all items' was higher in March 2010 than in the previous month. **(Y/N)**

3. The seasonally unadjusted change in the price of 'new vehicles' in August 2010 over the previous month was about the same as the seasonally unadjusted change in the price of 'food away from home' over the same period. **(Y/N)**

Women Enrolled, as a a Percent of Total Enrollment

Fall	University X	University Y	University Z	Province A
2000	52.8	44.2	58.5	50.6
2001	53.1	44.1	58.9	50.7
2002	53.6	44.0	55.8	50.8
2003	53.3	43.6	58.6	50.5
2004	53.0	43.9	58.1	50.5
2005	52.5	43.7	58.3	50.2
2006	52.2	43.8	58.1	50.1
2007	52.0	43.2	57.8	49.7
2008	51.4	43.8	58.3	49.7

The table lists the women enrolled as a percent of the total enrollment for each of the 3 universities—University X, University Y, and University Z—in Province A for the fall term of several consecutive years. For the fall term of each of these years, the table also lists the women enrolled at the 3 universities combined as a percent of the total combined enrollment at the 3 universities.

For each of the following statements, select **T** if the statement must be true based on the information provided; otherwise, select **F**.

A. Of the 3 universities, University Y had the smallest total fall enrollment in each of the years 2000 through 2008. **(T/F)**
B. In 2008, fewer women were enrolled in college in Province A than in 2000. **(T/F)**
C. Each of the 3 universities experienced at least one decline from one fall to the next in the number of women enrolled as a percent of the total enrollment. **(T/F)**

Vegetable	Cooked (yes/no)	Percent water	Energy (kcal)	Protein (g)	Total fat (g)	Carbs (g)	Total fiber (g)
Asparagus	yes	92	43	5	1	8	2.9
Beets	yes	87	75	3	trace	17	3.4
Broccoli	yes	91	44	5	1	8	4.5
Broccoli	no	91	25	3	trace	5	2.6
Carrots	yes	87	70	2	trace	16	5.1
Carrots	no	88	47	1	trace	11	3.3
Corn	yes	77	131	5	1	32	3.9
Green beans	yes	89	44	2	trace	10	4.0
Mustard greens	yes	94	21	3	trace	3	2.8
Pak choi	yes	96	20	3	trace	3	2.7
Spinach	yes	91	41	5	trace	7	4.3
Spinach	no	92	7	1	trace	1	0.8
Summer squash	yes	94	36	2	1	8	2.5
Summer squash	no	94	23	1	trace	5	2.1
Sweet green pepper	no	92	40	1	trace	10	2.7

The table displays nutrition data per 240 mL serving for selected cooked or uncooked vegetables: percent water, energy in kilocalories (kcal), protein, total fat, carbohydrate, and total fiber, in grams (g). Each serving consists of 240 mL of finely chopped, raw vegetables (uncooked) or 240 mL of thoroughly drained, steamed vegetables (cooked). For each of the following statements, select *Yes* if the statement is true based on the information provided; otherwise select *No*.

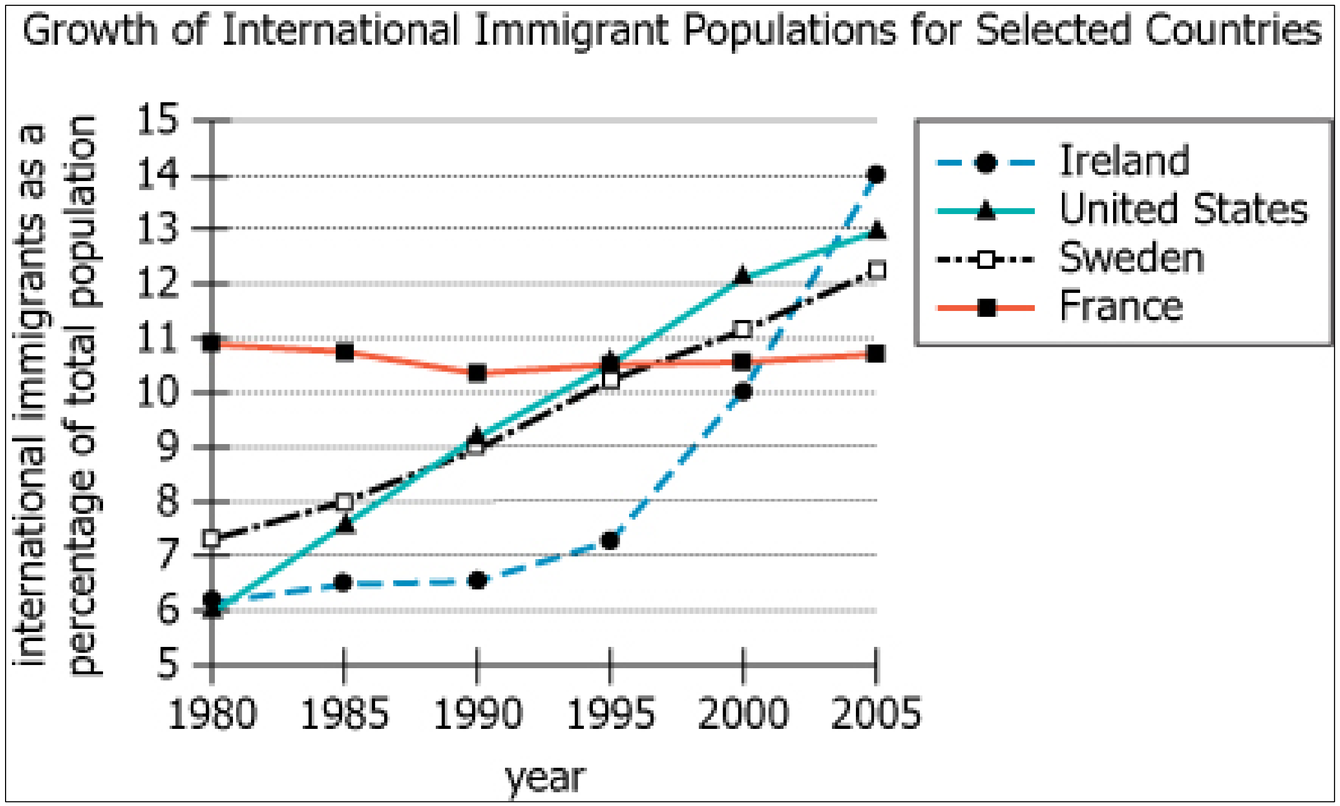
A. The median amount of protein for all uncooked vegetable listed is 1/3 the median amount of protein for all cooked vegetables listed. **(YES / NO)**

B. The amount of carbohydrate per serving of cooked corn is exactly 3 times the median amount of carbohydrate per serving for the other 14 vegetable options listed. **(YES / NO)**

C. Each serving listed for which total fiber is less than 3.0g also has at most 10g of carbohydrate. **(YES / NO)**

IR Question Type 2

Graphs



Select from each drop-down menu the option that completes the statement so that it is accurate based on the information provided.

The information in the graph

Select one

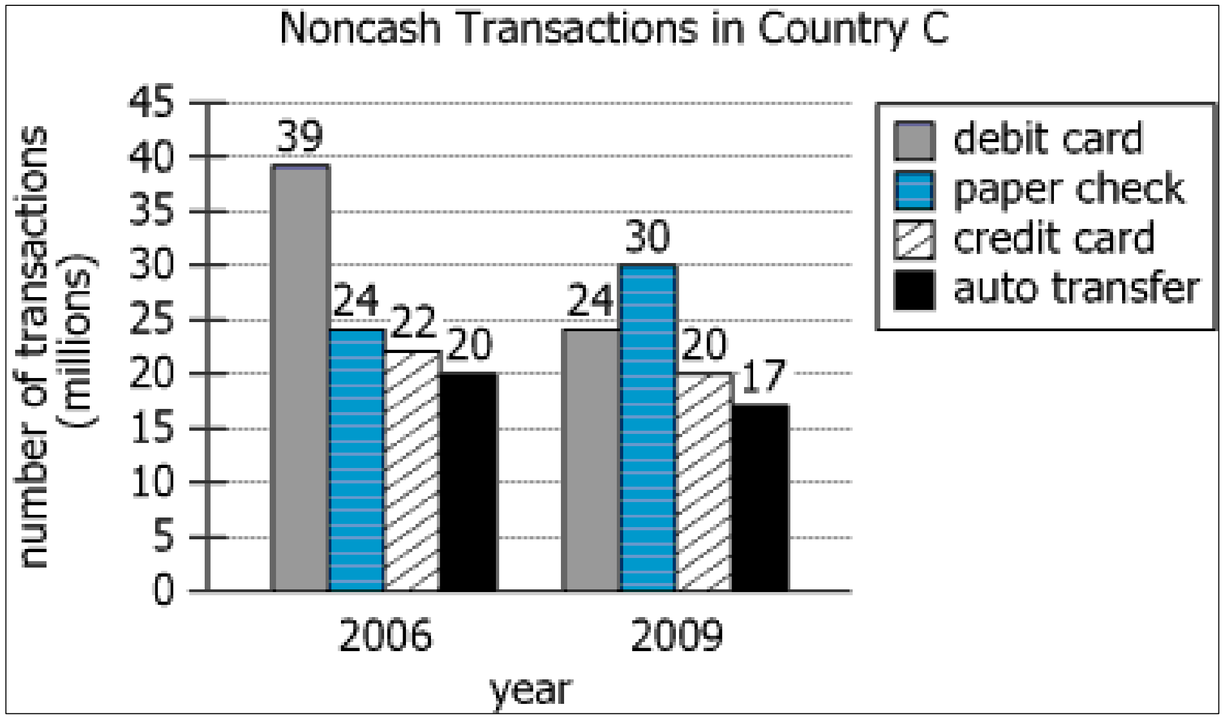
the statement that the *number* of international immigrants in France did not change significantly during the period from 1980 to 2005.

Options:

- directly affirms
- directly contradicts
- neither directly affirms nor directly contradicts

During the interval Select one, the United States' rate of growth in international immigrants as a percent of total population was less than that of at least one of the other countries included in the graph.

Options: 1980-1985 | 1980-1995 | 1995-2005



In Country C, the numbers of transactions made by various noncash methods in 2006 and 2009 are shown in the graphic. All other transactions were made with cash.

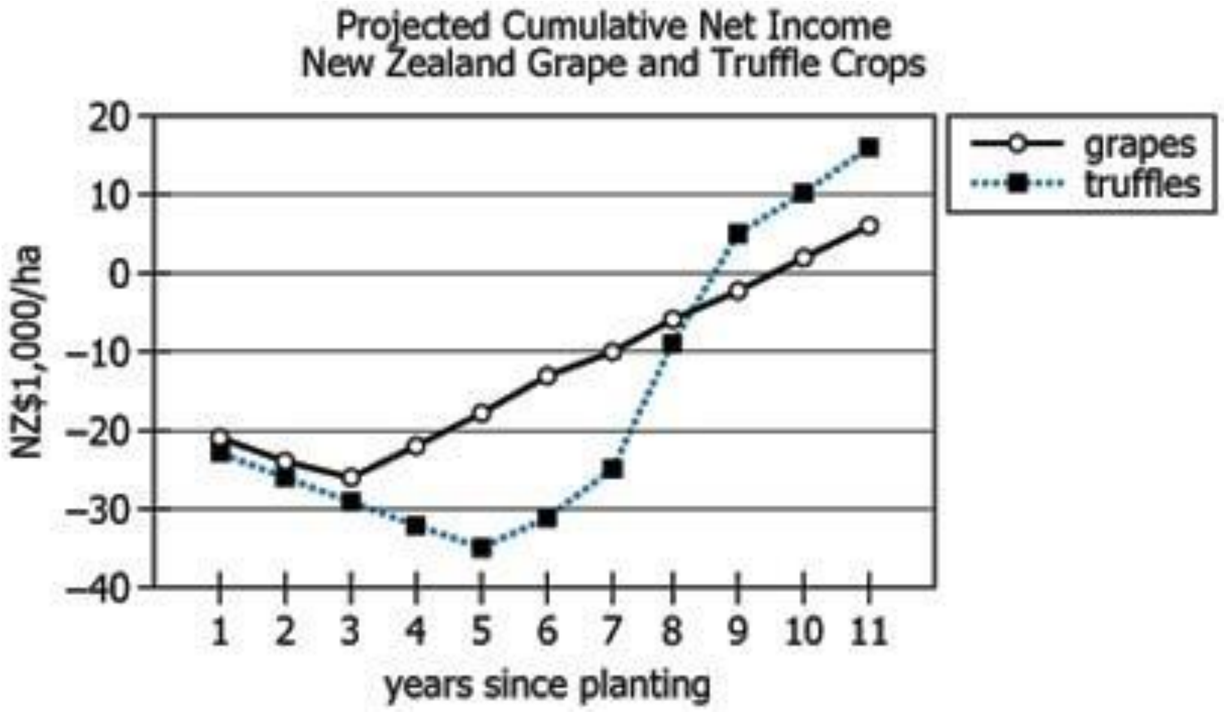
Use the drop-down menus to complete the statements about Country C so that they are consistent with the given information.

The number of Select one transactions increased by 25% from 2006 to 2009.

Options: debit card | paper check | credit card | auto transfer

If the total value of all credit card transactions in 2009 was 10% more than the total value of all credit card transactions in 2006, then the average (arithmetic mean) value of credit card transactions increased by Select one % from 2006 to 2009.

Options: 2 | 17.4 | 21 | 22



In New Zealand, the grape is a long-established crop, but the truffle—an edible fungus that grows on the roots of certain trees—became a commercial crop in the 1980s. The graph represents projected cumulative net income for grape and truffle crops through the end of the year, in thousands of New Zealand dollars per hectare (NZ$1,000/ha), for each of the first 11 years since planting. Cumulative net income is equal to total revenue from crop sales for the years since planting minus total investment costs over those same years.

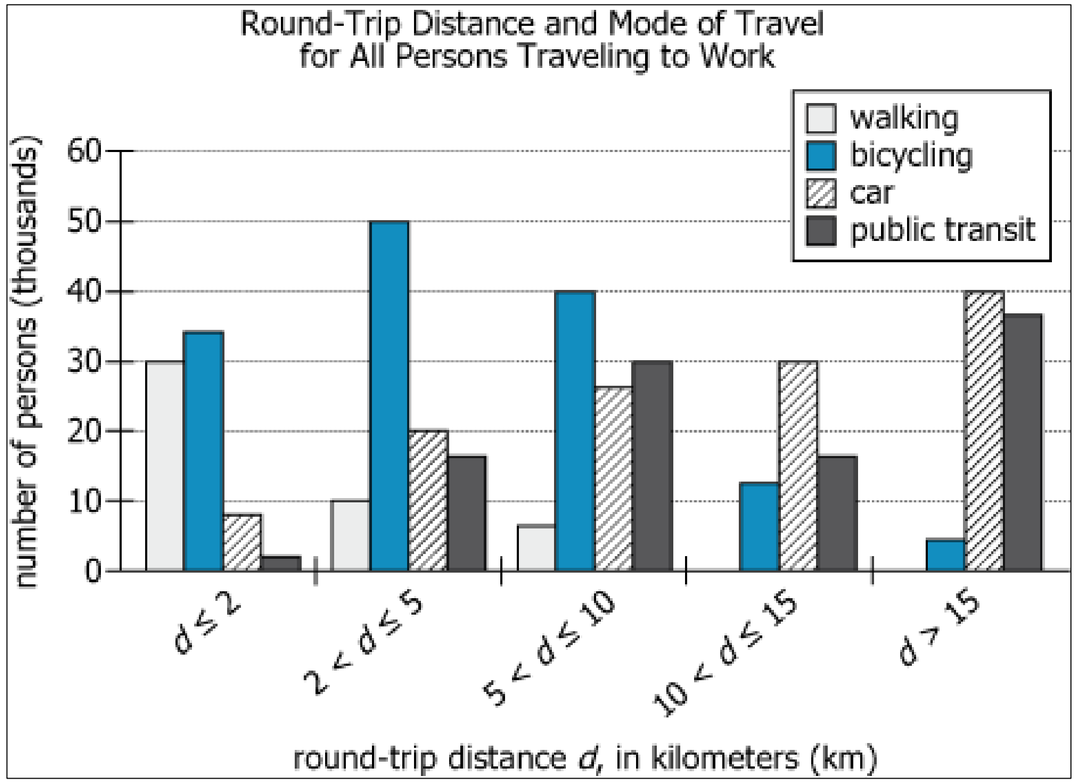
From each blank, select the option that creates the most accurate statement about these projections based on the given information.

Cumulative net income from truffles is least at the end of the _____ year since planting.

Options: 3rd | 5th | 7th

If cumulative net income for grapes continues to grow at the same rate as in years 8 through 11 since planting, the cumulative net income from grapes for the 12th year since planting will be approximately NZ$ _____ per hectare.

Options: 4000 | 7000 | 10000 | 13000



For a recent workday, the graph displays the round-trip distance and mode of travel for all persons traveling to work in a medium-sized city.

For each of the following blanks, select the option that creates the most accurate statement based on the information provided.

For all persons who traveled to work by walking, the median round-trip distance (x), in kilometers, satisfies the inequality _____.

Options: $x \leq 2$ | $2 < x \leq 5$ | $5 < x \leq 10$

For all persons who traveled to work by public transit, the median round-trip distance (x), in kilometers, satisfies the inequality _____.

Options: $10 < x \leq 15$ | $2 < x \leq 5$ | $5 < x \leq 10$

IR Question Type 3

Two-part Analysis

IR Question Type 3

Two-part Analysis (Non-Math based)

Researcher: Soils are adversely affected by road salts used to melt ice and snow, particularly along roadsides and salt storage areas. Soil samples were collected from highway medians and in salt storage yards. These samples showed chloride levels 11–160 times the level sufficient to inhibit bacterial growth in soil. The samples also had sodium levels 15–200 times the level sufficient to inhibit bacterial growth in soil. Inhibited bacterial growth in soil greatly inhibits plant growth in that soil.

An agriculture official would like to use the researcher's results to support the argument that sand, rather than road salts, should be used as a winter road treatment, thereby eliminating the need for salt yards.

Select the additional information that, if true, would *most strengthen* the official's case and select the additional information that, if true, would *most weaken* the official's case. Make only two selections, one in each column.

Most strengthen	Most weaken	Statements
○	○	A high number of road accidents are attributable to untreated roads in winter.
○	○	The cost of removing salts from soil in abandoned salt yards is high.
○	○	High chloride concentrations in drinking water supplies have a negative impact on health.
○	○	Sand is much less effective than salt at making roads safe to drive in winter conditions.
○	○	Runoff from roads is often absorbed by farmland.

A particular store has various cell phones in stock. Of all cell phones in stock:

- Most are sold at a discounted price if purchased with a new or renewed service contract.
- More are dial pad phones (phones with integrated mechanical pads for entering numbers) than are touch-screen-only phones (phones without integrated mechanical pads for entering numbers).

Of the dial pad phones:

- Most have screens smaller than 8 centimeters (cm), measured diagonally.
- Most are packaged with two or more accessories.

Of the touch-screen-only phones:

- Most have screens 8 cm or larger.
- Most are packaged with two or more accessories.

Statement to be completed: Given the information regarding the cell phones in stock at the store, it follows that, of those that __1__, fewer than half __2__ .

Based on the information provided, select for 1 and for 2 the options that most accurately complete the statement above. Make only two selections, one in each column.

1	2	
○	○	are touch-screen-only phones
○	○	have screens 8 cm or larger
○	○	are purchased without a service contract
○	○	are available at a discounted price with a service contract
○	○	are packaged with fewer than two accessories

Archaeologist: There were several porcelain-production centers in 18th-century Britain, among them Bristol, Plymouth, and New Hall. Each center developed a unique recipe for its porcelain that might include flint glass, soapstone, bone ash, clay, quartz, and so on. We will therefore be able to determine, on the basis of compositional analysis, where the next cup we recover from this archaeological site was made.

Indicate two different statements as follows: one statement identifies an *assumption required* by the archaeologist's argument and the other identifies a *possible fact* that would, if true, strengthen the required assumption.

Assumption required	Possible fact	
○	○	Other cups have been recovered from the archaeological site, all of which were made of porcelain.
○	○	Some of the cups recovered from the archeological site were not made of porcelain.
○	○	The next cup to be recovered from the site will likely be made of porcelain.
○	○	Porcelain makers often traveled between centers, experimeriting with one another's recipes.
○	○	There was considerable overlap of materials in the recipes used by the various centers.
○	○	Most porcelain in 18th century Britain was made at one of the several centers.

IR Question Type 3

Two-part Analysis (Math based)

Eureka Airlines operates 5 daylong flight sequences serving City A, City B, City C, City D, and City E. The following list shows the order of the cities served by each flight sequence.

Sequence 1:	A-B-C-A	(3 flights)
Sequence 2:	A-D-B-A	(3 flights)
Sequence 3:	A-E-D-A	(3 flights)
Sequence 4:	A-E-B-D-A	(4 flights)
Sequence 5:	A-C-B-D-A	(4 flights)

Due to the number of available flight crews, Eureka can operate only 3 flight sequences in a given day. Exactly 10 flights are flown each day. No sequence is used for more than 2 consecutive days, and no sequence is idle for 2 consecutive days.

For *City A*, select the number of Eureka flights that will arrive in City A over the span of any 3-day period. For *City D*, select the number of Eureka flights that will arrive in City D over the span of any 3-day period. Make only two selections, one in each column.

City A	City D	
○	○	3
○	○	6
○	○	7
○	○	8
○	○	9

At a certain company, employees purchase food and beverages from vending machines using two types of company-issued tokens—small tokens and large tokens. Each large token is equal in value to 5 small tokens.

The *XJ100* is a vending machine at the company that sells exactly one type of beverage at a price of 3 small tokens. If 1 large token is inserted, 2 small tokens will be returned with the beverage. Employees are equally likely to pay for a beverage from this machine with 1 large token as they are with 3 small tokens. When the *XJ100* is serviced, all tokens are removed except for 50 small tokens. This is the only time tokens are removed.

Between the last time it was serviced and today, 400 beverages were sold from the *XJ100*. In the table, select the number of tokens of each size that would be expected to be in the *XJ100* today. Make only two selections, one in each column.

Small tokens	Large tokens	
○	○	50
○	○	150
○	○	200
○	○	250
○	○	400

Over a period of 5 academic years from Fall 1999 through Spring 2004, the number of faculty at a certain college increased despite a decrease in student enrollment from 5,500 students in Fall 1999.

In the given expressions, F and S represent the percent change in the number of faculty and students, respectively, over the 5 academic years, and R represents the number of students per faculty member in Fall 1999.

Select the expression that represents the number of faculty in Fall 1999, and select the expression that represents the number of students per faculty member in Spring 2004. Make only two selections, one in each column.

Number of faculty in Fall 1999	Students per faculty member in Spring 2004	
○	○	$5,500R$
○	○	$\frac{5,500}{R}$
○	○	$\frac{1}{R}$
○	○	$\left(\frac{100+S}{100+F}\right)R$
○	○	$\left(\frac{100-S}{100+F}\right)R$
○	○	$\left(\frac{100+S}{100-F}\right)R$

A portion of an automobile test track is divided into Segment A, Segment B, and Segment C, in that order. In a performance test on a car, the car traveled Segment A at a constant speed of 140 kilometers per hour (km/h). Immediately after this, the car rapidly slowed on Segment B and then traveled on Segment C at a constant speed of 70 km/h. The length of Segment C is 3 times the length of Segment A, and it took a total of 42 minutes for the car to travel both segments A and C. In the table, select the length of Segment A, in kilometers, and select the length of Segment C, in kilometers. Make only two selections, one in each column.

Length of Segment A (kilometers)	Length of Segment C (kilometers)	
○	○	8
○	○	14
○	○	24
○	○	42
○	○	72
○	○	126

IR Question Type 4

Multi-source reasoning

2 question sets

1. Question with 3 tabs
2. Question with 2 tabs

TAB 1: Credit Discussion

Credit in developing countries can be granted through formal or informal channels. Formal channels include institutions such as banks, credit cooperatives, and government agencies. Loans of this type accrue positive interest and are typically court enforced. Informal credit channels include relatives, friends, community members, moneylenders, rotating savings and credit associations, and informal intermediaries. Loans such as these may or may not accrue positive interest. Loans of either type may be used by the borrower for consumption or investment in a business.

In 1930s rural China, informal credit was sometimes court enforced. However, it was more often self-enforcing, especially in remote areas. With a positive interest rate loan, the borrower would pay principal and interest. With a zero–interest rate loan, the borrower would repay the principal and provide some non-monetary resource in lieu of interest. For example, the borrower might have supplied land, labor, or draft animal services to the lender.

TAB 2: Loans Table: Interest Rates

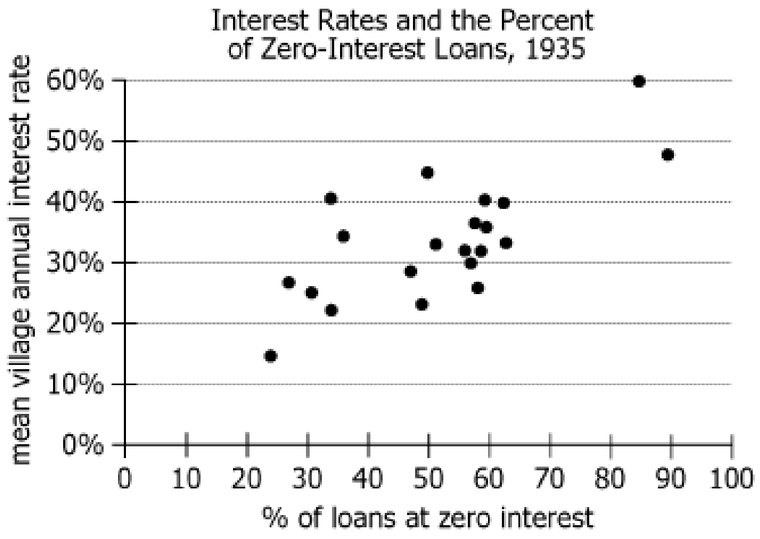
The table shows data from a comprehensive survey, conducted in 1936, of all households in 21 villages in what is now northeast China. It includes all loans reported as occurring during 1935. A loan involves security if and only if it involves a written (as opposed to a verbal) contract, the presence of a third-party guarantor, or collateral. Loans of fixed duration involve a well-defined repayment period.

Informal Loans by Type and Attribute

	Loan type	
	Zero interest	**Positive interest**
Number of loans	363	300
Seasonality:		
Jan–Mar (%)	32.5	38.7
April–June (%)	20.7	21.3
July–Sep (%)	13.2	8.7
Oct–Dec (%)	33.6	31.3
Security:		
Written (%)	1.4	10.3
Third party (%)	2.8	12.7
Collateral (%)	1.4	10.3
Fixed duration (%)	25.3	51.3
Purpose:		
Consumption (%)	62.0	58.7
Investment (%)	33.1	38.0
Other (%)	5.0	3.3

TAB 3: Interest Rates

For the loans presented in the table, the graph shows the relationship between the average (arithmetic mean) annual interest rate by village and the percent of loan contracts that were negotiated at zero interest.



Q. According to the information provided, a lender who offered one of the zero–interest rate loans included in the table would accurately be described as making which of the following trade-offs? Select *Yes* for each option that applies. Otherwise, select *No*.

1. Giving up a fixed duration of repayment in exchange for security **(Y/N)**
2. Giving up interest payments in exchange for security **(Y/N)**
3. Giving up interest payments in exchange for access to other resources **(Y/N)**

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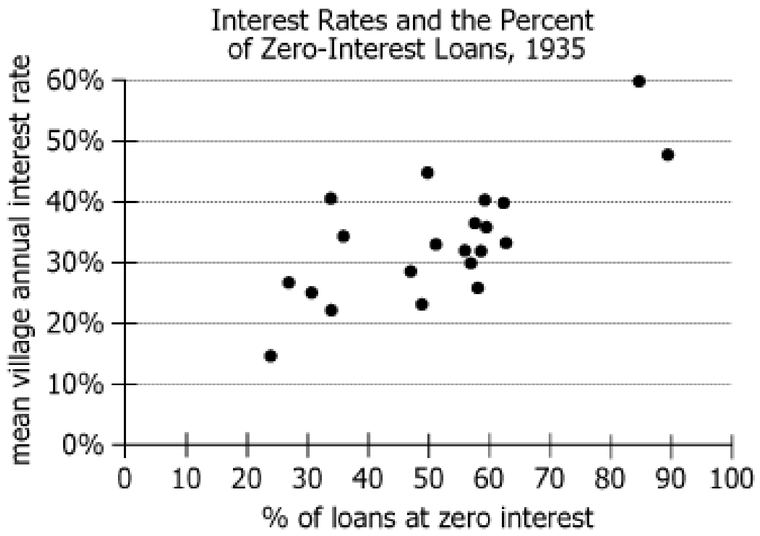

Q. If one of the loans in the survey is considered at random, with no prior knowledge of the village in which it was issued, which of the following factors would, if known, increase the probability that the loan is a zero–interest rate loan?

1. The village's mean annual interest rate in 1935 was greater than 45%. **(Y/N)**
2. The lender anticipated that the borrower would be unable to supply land, labor, or draft animal services in the future. **(Y/N)**
3. The village's mean annual interest rate in 1935 was less than 20%. **(Y/N)**

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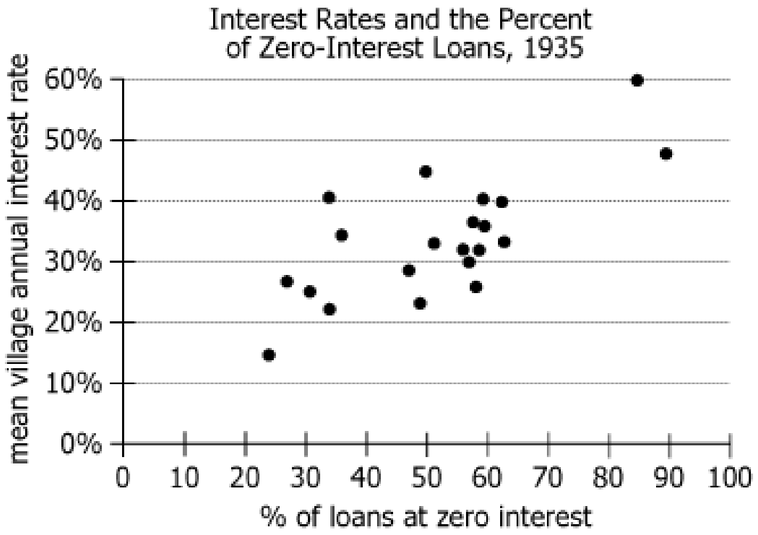

Q. The information most strongly indicates that which one of the following is true of the loans in the table?

A. A greater number of zero–interest rate loans were negotiated in the village with the highest average annual interest rate than in the village with the second-highest rate.

B. A greater number of zero–interest rate loans than positive–interest rate loans were negotiated.

C. At least one zero–interest rate loan of fixed duration was used for consumption.

D. In more than half of the villages with average annual interest rates ranging from 20% to 30%, zero–interest rate loans predominated.

E. Among loans that were not zero–interest rate loans, the majority were issued at interest rates of less than 40%.

Tab 1: Prospector

Gold is typically mined from two different types of geologic formations (known as deposits): lode deposits and placer deposits. Lode deposits are what prospectors dream of finding: large deposits of nearly pure gold. Such deposits are located where they were originally deposited by the mineral-bearing solutions that carried the gold up from the earth's interior. Placer deposits, on the other hand, come from preexisting lode deposits that are exposed at the surface of the earth. These lode deposits' exposure to the weather causes gold to be released from the surrounding rock and transported by rivers in the form of dust or flakes. When a stream carrying the gold slows, the gold collects in pockets of sand. Placer-deposit mines have historically been the source of approximately 35 percent of the total gold mined in the US. However, in recent years, the quantity of gold mined from such deposits has decreased as the readily accessible deposits have been exhausted. Thus, despite an increase in net gold mined, placer-deposit mining now accounts for only a few percent of total gold mined in the US.

Tab 2: Environmental Scientist

Because—unlike mining lode deposits—mining placer deposits does not usually involve crushing rock and using chemicals to extract gold, the environmental impacts are generally less than those of mining lode-deposits. The primary impacts of placer-deposit mining are habitat destruction and sediment release. Habitat destruction occurs as a result of river diversions and disruptions of river bottoms and banks, and the large amounts of silt and sediment released can severely impact water quality. Modern commercial operations tend to use settling ponds to prevent this discharge.

Mining lode deposits has a much larger environmental impact by virtue of the size of such operations, the generation of waste material, and the use of toxic chemicals. The gold comes out of the ground as raw ore—gold aggregated with other minerals. On average, such mining operations process approximately 130 kilograms of raw ore to produce 1 gram of pure gold. Unlike placer-deposit mines, modern commercial lode-deposit mines are massive operations, some displacing and processing up to 180,000 metric tons (1 metric ton = 1,000 kilograms) of raw ore per day.

The Grasberg gold mine in Papua Indonesia is the largest gold mine in the world, producing over 57,000 kilograms of pure gold per year. For each of the following, select *Implied* if the information provided implies that, at the time the passages were written, it was likely true of the Grasberg mine. Otherwise select *Not implied*.

Implied	Not Implied	
○	○	Chemicals were used to extract gold from the ore collected at the Grasberg mine.
○	○	The Grasberg mine processed approximately 130 kilograms of raw ore for each 1gram of pure gold it produced.
○	○	The Grasberg mine was located at or adjacent to a river.

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Each of the following claims appears in the environmental scientist's passage. For each, select *Supported* if the scientist cites specific evidence to support the claim. Otherwise select *Not supported*.

Supported	Not supported	
○	○	On average, an operation mining a lode deposit processes approximately 130 kilograms of raw ore to produce 1 gram of pure gold.
○	○	Modern commercial placer-deposit mining operations tend to use settling ponds to prevent the discharge of large amounts of silt and sediment.
○	○	Modern commercial lode-deposit mines are massive operations.

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Suppose that a mine is established on a lode deposit that contains ore with 20 times the average proportion of gold to ore. Which one of the following describes the number of days it would take for such an operation, working at the fastest rate described in the passages, to produce 100 metric tons of pure gold?

- ○ Greater than 1 but less than 2 days
- ○ Greater than 2 but less than 3 days
- ○ Greater than 3 but less than 4 days
- ○ Greater than 4 but less than 5 days
- ○ Greater than 5 but less than 6 days

End of session