

The Manhattan GMAT IR Notes

【笔记说明】

此笔记内容来源于曼哈顿综合推理分册前四章：英文部分全部摘抄自书中内容，有删节；中文部分为个人所加。本笔记旨在为时间紧张和资源有限的同学们提炼书中的精华思想与解题方法，主要为纲目，而对于很多题目的讲解与图表等未予摘录，有希望深入了解不同题型和解题方法的同学推荐阅读曼哈顿综合推理分册的完整版。由于水平有限，不足之处敬请各位大牛指出，致谢。最后，祝愿同学们都能够取得满意的成绩！

[Chapter 1 Introduction to Integrated Reasoning]

● IR 介绍 [准备篇]

综合推理要求考生具有数学和语文双重思维(**both math and verbal thinking**)，在30分钟内，基于12个提示或信息的集合来分析和回答问题(每个提示对应至少三个问题)。

注意：综合推理不是适应性考试，试题难度不会随答题情况而变化，但是做完后不能返回之前的题目。

综合推理部分主要反映了**案例分析(case analysis)**的两个主要方面：

math-verbal integration 数学和语文的综合
flood of real-world data 真实世界的数据流

● 四种题干类型：

1. Multi-Source Reasoning 多元推理	Switch between two or three tabs of information.
2. Table Analysis 表格分析	Sort a table by any column using a pull-down menu.
3. Graphics Interpretation 图表解读	Interpret a graph or other image.
4. Two-Part Analysis 二段式分析	Answer a two-part question.

● 四种问题类型：

A. Traditional Multiple Choice	Pick one of five choices, as usual.
B. Either/Or Statements* (GMAT:multiple-dichotomous choice)	Choose one side or the other for each of three statements.
C. Drop-Down Statements	Make one choice from a drop-down menu for each of two statements.
D. Two-Part Question	Make one choice in each of two columns.



● 题干与题型的对应情况 (结合图表具体理解):

1. 多元推理——A. 传统单选题
B. 是非选择题(Either/Or)
2. 表格分析——B. 是非选择题(Either/Or)
3. 图表解释——C. 下拉菜单题
4. 二元分析——D. 两元素式题

批注 [J1]: 从对应给出的三行陈述中分别选择对/错

批注 [J2]: 从左边两栏的元素中匹配右边对应的内容 (注意: 可能出现两个元素匹配相同的内容, 即对应右边同一行。)

Prompt

1. Multi-Source Reasoning

Proposal	Objectives	Budget
Email from manager to staff		
April 7, 1:03pm		
The results of the recent marketing survey have been compiled...		

Question

A. Traditional Multiple Choice

What is the increase...?

- 10%
- 20%
- 30%
- 40%
- 50%

Questions per Prompt

Probably 1

B. Either/Or Statements

True	False	
<input type="radio"/>	<input checked="" type="radio"/>	Statement 1
<input checked="" type="radio"/>	<input type="radio"/>	Statement 2
<input type="radio"/>	<input checked="" type="radio"/>	Statement 3

Probably 2

3 statements = 3 responses
(1 per row)

2. Table Analysis

Sort by

City	Population	3-7 more columns
Alphaville	412,390	...
Baskerville	287,840	...
Camelot	123,650	...

4-20 more rows

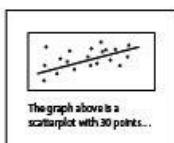
B. Either/Or Statements

True	False	
<input type="radio"/>	<input checked="" type="radio"/>	Statement 1
<input checked="" type="radio"/>	<input type="radio"/>	Statement 2
<input type="radio"/>	<input checked="" type="radio"/>	Statement 3

Just 1 per prompt

3 statements = 3 responses
(1 per row)

3. Graphics Interpretation



C. Drop-Down Statements

The slope is

The volume is

- 100 cc
- 200 cc
- 300 cc
- 400 cc

Just 1 per prompt

2 responses (1 per statement)

4. Two-Part Analysis

Here is some information.
The format of this prompt is not interesting. However, the question type associated with this prompt is interesting.

D. Two-Part Question

Co. A	Co. B	Profit
<input type="radio"/>	<input type="radio"/>	-\$200 million
<input type="radio"/>	<input type="radio"/>	-\$100 million
<input type="radio"/>	<input checked="" type="radio"/>	90
<input type="radio"/>	<input type="radio"/>	\$100 million
<input type="radio"/>	<input type="radio"/>	\$200 million
<input type="radio"/>	<input type="radio"/>	\$500 million

Just 1 per prompt

2 responses (1 per column). Note:
The same answer could be right for both columns!)



[Chapter 2 IR Quant]

● IR 数学篇

IR Quant 和数学部分的不同之处:

- ◆ **Ugly numbers** 综合推理部分所给的数据信息多为现实中的数据
- ◆ **Extra information** 题干中提供的信息包含多余的信息
- ◆ **Many different forms** 题干将以多种不同的形式呈现
- ◆ **Calculator** 允许使用屏幕上出现的计算器

IR Quant 攻略:

- ◆ **Prepare for GMAT Quant** 准备好 GMAT 数学部分
- ◆ **A good problem-solving process** 良好的问题解决过程

--IR 数学解题基础四步--

- ① **Understand the prompt.** 理解题干 (Ask **WHAT&SO WHAT**)
- ② **Understand the question.** 理解问题 (简化题干)
- ③ **Plan your approach.** 计划解决方法
- ④ **Solve the problem.** 解决问题 (解题过程中可以利用平面直角坐标系、估算等小技巧)

重点数学知识:

- ◆ **Decimals, Percents, & Ratios** 小数, 百分数, 比率
 - ◆ **Statistics** 统计学
- Normal distribution 正态分布 / Correlation 相关性 / Regression 回归性**

注意 Percent 问题中的陷阱!

Percents vs. Quantities. 百分比与数量

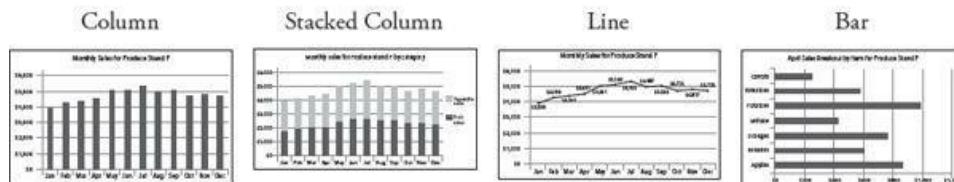
Percent Of What 是谁的百分比

Percent Of vs. Percent Greater Than. 是...的 x% 还是比...多 x%

Percent Decrease and Then Increase. 先减后增/先增后降 (基数发生变化)

熟悉各种图表表格!

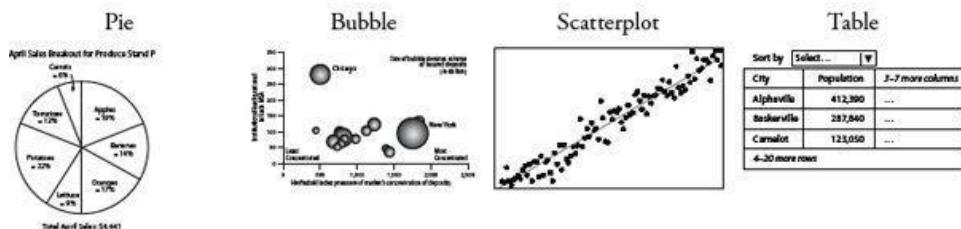
Column 柱状图 / **Stacked Column** 分层柱状图 / **Line** 折线图 / **Bar** 条形图



批注 [J3]: 虽然涉及到正态分布、相关性等知识，统计学方面的考察并不是很深入。因为经管类一般都涉及统计学相关知识，不展开写知识点了，如果需要回顾可以扫一眼曼哈顿原书上的解释或者参考统计学书上一些相关知识。

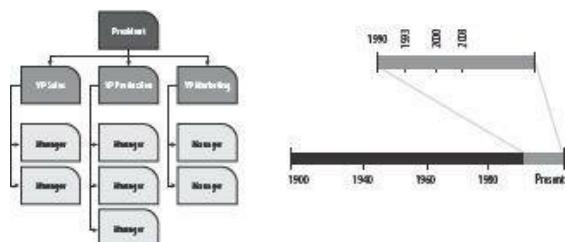


Pie 饼图 / Bubble 气泡图 / Scatterplot 散点图 / Table 表格

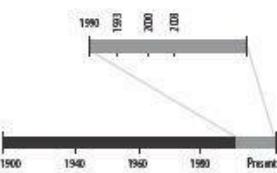


特殊的: Organization Chart 组织结构图 / Timeline 时间轴

Organizational Chart



Timeline



另: 维恩图(Venn diagram)

--静态表格: 忽视表头, 密切关注标签。

--可分类表: 注意表头标题, 关注行列的标签 (若标有排名应挖掘出暗示信息)。

计算器: 建议提前熟悉按键的功能, 考场上有备无患。做题时也要注意输入的数字是否正确, 避免计算失误浪费宝贵时间。

当题干所给信息中有多个图表, 综合利用这些数据信息, 架构起逻辑联系, 并关注相似标签或图表直接的细微差别。

批注 [J4]: Venn 图一般的展示形式和数学中的类似, 不做详述。注意其中“交集”和“补集”的部分。



[Chapter 3 IR Verbal]

● IR 语文篇

● IR Verbal 和语文部分的不同之处:

A lot to read & Fast reading 阅读量大&速读

Fragmented prompts 题干信息支离破碎

Text: wide-ranging in both content and form & integrated with numbers

文本：内容涉及的知课面广，展现形式多样，与数字相结合

--IR 语文解题基础四步 创建高阶思维地图--

①Understand the prompt.理解题干 (Ask **WHAT&SO WHAT**)

②Understand the question.理解问题

③Plan your approach.计划解决方法

④Solve the problem.解决问题

※批判性阅读※

Critical Reading = Reading Comprehension + a little Critical Reasoning
(+ even a little Data Sufficiency)

将阅读的信息“翻译”成现实中的对话，明确对话双方的身份与关系(**Who are these people?**)，探究出对话双方的本意(**What is the purpose of each move?/What is he or she doing by saying these words?**)，从语言中获取事实(**Facts**)、意图(**Wants**)、情感(**Emotions**)。

1. Facts

- Describe, assert, predict, explain, guess, wonder, express an expectation or belief, etc.
- Ask about, inquire, etc.
- Agree about, disagree about, affirm, refute, contradict, ignore, emphasize, etc.

2. Wants

- Commit, promise, offer, agree to, acquiesce, refuse, permit, etc.
- Ask for, request, demand, plead, invite, command, forbid, warn, etc.

3. Emotions

- Thank, congratulate, praise, blame, criticize, wish well or ill, commiserate, soothe, encourage, discourage, etc.
- Express his own happiness, sorrow, anger, joy, resignation, excitement, etc.

批注 [J5]: 关系和身份举例：1

company

(boss-employee;

colleague-colleague.)

2 inside-outside relationships

(customer-salesperson;

job applicant-recruiter;

executive-other stakeholder.)

注：第四章的重点内容对应分布到前三章，故不再赘述。

感谢阅读！



By Charlotte
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