Introduction to Quantitative Reasoning of GRE

GRE 数学小白必看

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GRE 冲分班数学

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Presentation Overview

1. Score Goal
   - A Quick Survey About YourIntended Graduate Major
   - The Score Goal For Your Intended Graduate Major
2. Test Format
   - Test Day Experience
   - Computer-Adaptive Test
   - scoring
   - Question Types
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Score Goal

A Quick Survey About YourIntended Graduate Major

What is Your Intended Graduate Major

不同专业，GRE 数学分数要求不同

1. Computer Science, Electronic Engineering, Data Science, Finance, Physics, Chemistry, Biology, Statistics, Applied Mathematics, Management Business Analytics, Psychology(PhD.), Economics and other Engineering, Science or PhD. programs
2. Linguistic, Psychology(Master), Education(Master), Architecture, Philosophy, Gender Studies, East Asian Studies, Marketing, and Business
3. Others: State your Graduate Major

The Score Goal For Your Intended Graduate Major

Admission Statistics

Mathematics of Finance (MA), Columbia University

Test scores are now optional, but still, approximately 87% of the Fall 2021 entering class submitted GRE scores.
—https://www.math.columbia.edu/mafn/admissions/admissions-statistics/

GRE Quantitative Score	**2019**	**2020**	**2021**
Mean	169.1	169.5	169.17
Median	160.0	160.7	161.9

表: The median and average GRE QR score for the entering class of 2019, 2020 and 2021 in Mathematics of Finance MA Program of Columbia University

QR Score Goal

分数够用就行

Your Response	Score Goal	Comments
1	169-170	Your study is heavily dependent on Mather
2	165-170	Your study is weakly dependent on Mather

表: Suggested Quantitative Reasoning score goal

QR Scores below the lower bound may dent your application.

Test Format

Test Day Experience

Test Day Experience

20 道题/35mins, 屏幕阅读

图: GRE Home Test

大陆考场：9:30 封闭考场，10 点左右开始考试，13:40 左右结束
国外考场：上午场和下午场可选
家考（Recommended)：7 天/24h 可选，安检 30 分钟，自己设备, 印度考官

Computer-Adaptive Test

Unscored Section

第 1 个 section 往往是 routing section
可以预测加试科目，但是无法预测具体第 2 或者第 3 个 Section 是加试

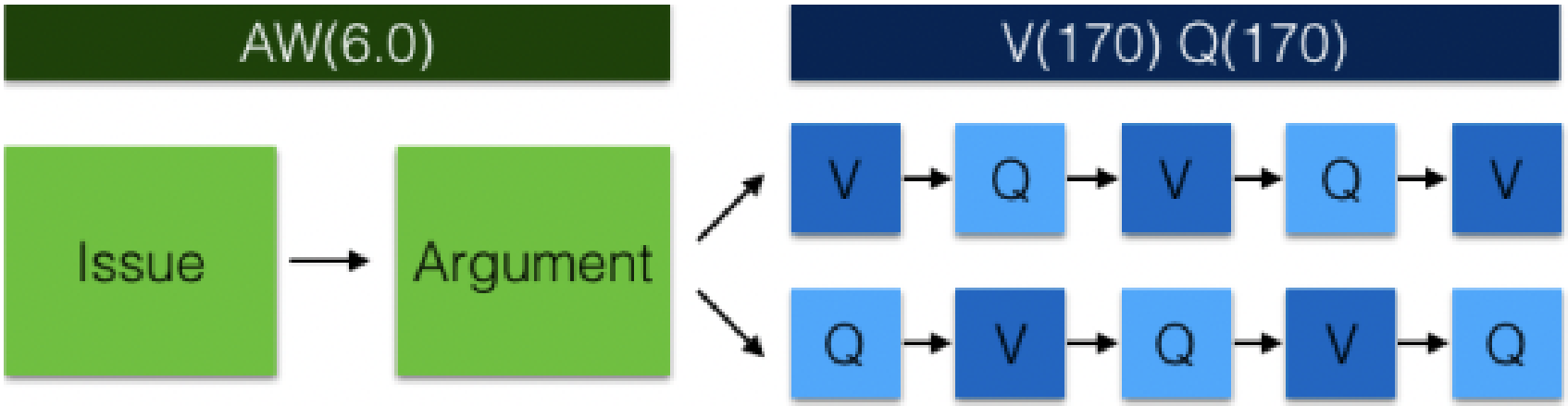


图: Possible Routes

Computer-Adaptive Test: Section-Level Adaption

scoring

Diagnostic Report 诊断报告

正常 15 天出分，出分后 3 天出诊断报告

First Section

Arithmetic

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Quantitative Comparision	Pure math	Right	1	01:36
2	Multiple-choice–Select One or More	RealLife	Right	2	04:01
3	Quantitative Comparision	Pure math	Right	3	01:44
4	Multiple-choice–Select One	Pure math	Right	3	00:37

Algebra

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Quantitative Comparision	Pure math	Right	2	00:58
2	Multiple-choice–Select One	RealLife	Right	3	01:00
3	Quantitative Comparision	Pure math	Right	3	01:22
4	Multiple-choice–Select One	Pure math	Right	4	03:09

Geometry

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Quantitative Comparision	Pure math	Right	2	00:56
2	Quantitative Comparision	Pure math	Right	2	02:01
3	Numeric Entry	Pure math	Right	4	01:06
4	Numeric Entry	RealLife	Right	4	03:02

Diagnostic Report 诊断报告

Data Analysis 用时更多

Data Analysis

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
Discrete Questions					
1	Quantitative Comparision	Pure math	Right	2	01:10
2	Multiple-choice–Select One	RealHife	Right	3	02:02
3	Multiple-choice–Select One	Pure math	Right	3	01:09
4	Quantitative Comparision	RealHife	Right	3	01:17
5	Multiple-choice–Select One	Pure math	Right	4	00:48
Set Members					
6	Multiple-choice–Select One	RealHife	Right	2	02:02
7	Multiple-choice–Select One	RealHife	Right	4	02:18
8	Numeric Entry	RealHife	Right	5	02:33

Diagnostic Report 诊断报告

Section 2 的题目更难

Second Section

Arithmetic

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Quantitative Comparision	Pure math	Right	3	01:35
2	Multiple-choice–Select One	Pure math	Right	4	00:31
3	Multiple-choice–Select One	Pure math	Right	4	01:42
4	Numeric Entry	Pure math	Right	5	01:55
5	Multiple-choice–Select One or More	Pure math	Wrong	5	05:11

Algebra

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Multiple-choice–Select One	RealLife	Right	4	01:28
2	Quantitative Comparision	Pure math	Right	4	02:10
3	Quantitative Comparision	Pure math	Right	4	01:05
4	Quantitative Comparision	Pure math	Right	4	00:28

Geometry

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
1	Quantitative Comparision	Pure math	Right	3	02:21
2	Quantitative Comparision	Pure math	Right	4	00:39
3	Multiple-choice–Select One	Pure math	Right	4	00:55
4	Multiple-choice–Select One	Pure math	Right	4	01:48

Diagnostic Report 诊断报告

不定项选择题最容易错

Data Analysis

Reference #	Question Type	Setting	Right/Wrong	Difficulty Level	Time Spent
Discrete Questions					
1	Quantitative Comparision	RealLife	Right	2	00:38
2	Multiple-choice–Select One	RealLife	Right	4	01:42
3	Multiple-choice–Select One	RealLife	Right	4	02:56
4	Multiple-choice–Select One or More	RealLife	Wrong	5	01:53
Set Members					
5	Multiple-choice–Select One	RealLife	Right	1	01:13
6	Multiple-choice–Select One	RealLife	Right	4	02:32
7	Multiple-choice–Select One	RealLife	Right	5	02:09

Predict Your Score

第二个 section 错题和分数的关系：错 1-2 个 170/169

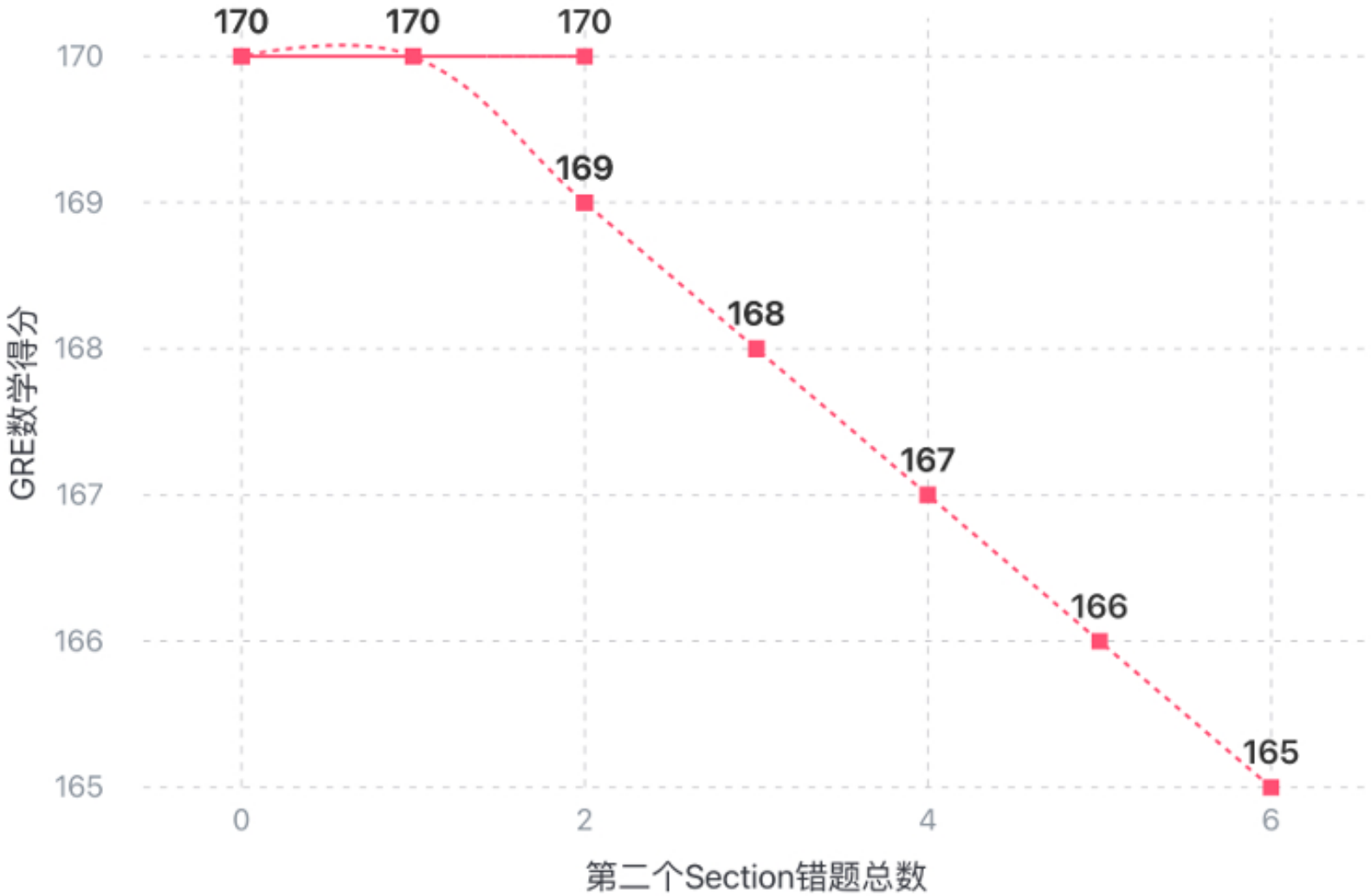
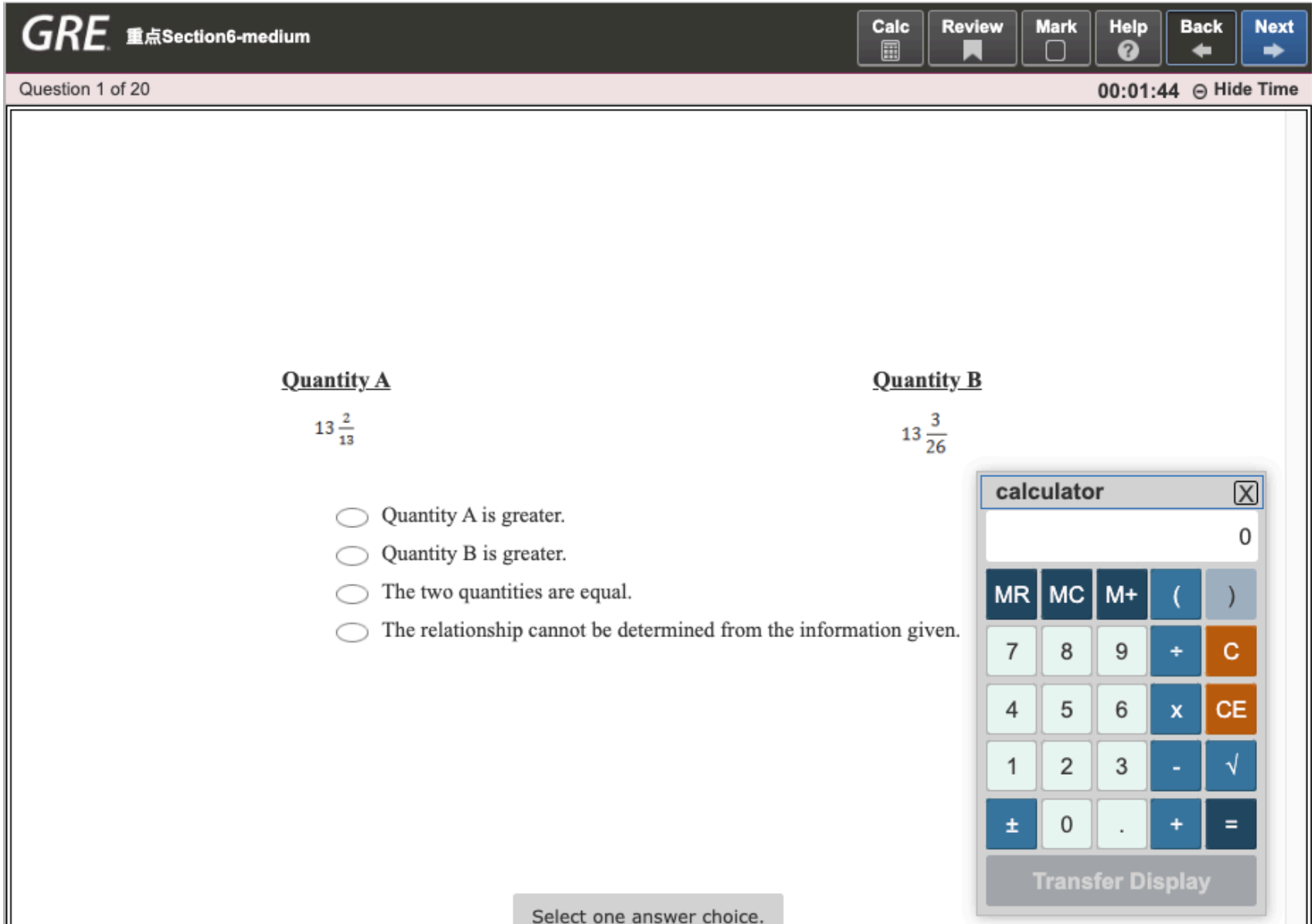


图: Regression between the number of incorrect question of the 2nd section and

Question Types

Quantitative Comparison 比大小

选项固定，带入数，估算，化简



Multiple-choice—Select One 单选

如果要近似，选项间隔小，一定要用计算器精确计算，最后一步再化简

GRE 重点Section6-medium

Calc | Review | Mark | Help | Back | Next

Question 9 of 20

00:05:48 Hide Time

Working alone at their respective constant rates, machine R processes one ton of ore in 4.5 hours, and machine S processes one ton of ore in 6.7 hours. Which of the following is closest to the number of hour that it would take both machines, working simultaneously at their respective constant rates, to process one ton of ore?

- 2.4
- 2.5
- 2.6
- 2.7
- 2.8

Select one answer choice

Multiple-choice Questions—Select One or More Answer Choices 选一个或者多个，最后一题难度为 5

GRE 重点Section6-hard

Calc | Review | Mark | Help | Back | Next

Question 20 of 20

00:00:13 Hide Time

If $a > 1$, which of the following could be the value of $\left(1+\frac{1}{a}\right)^{-1}$?

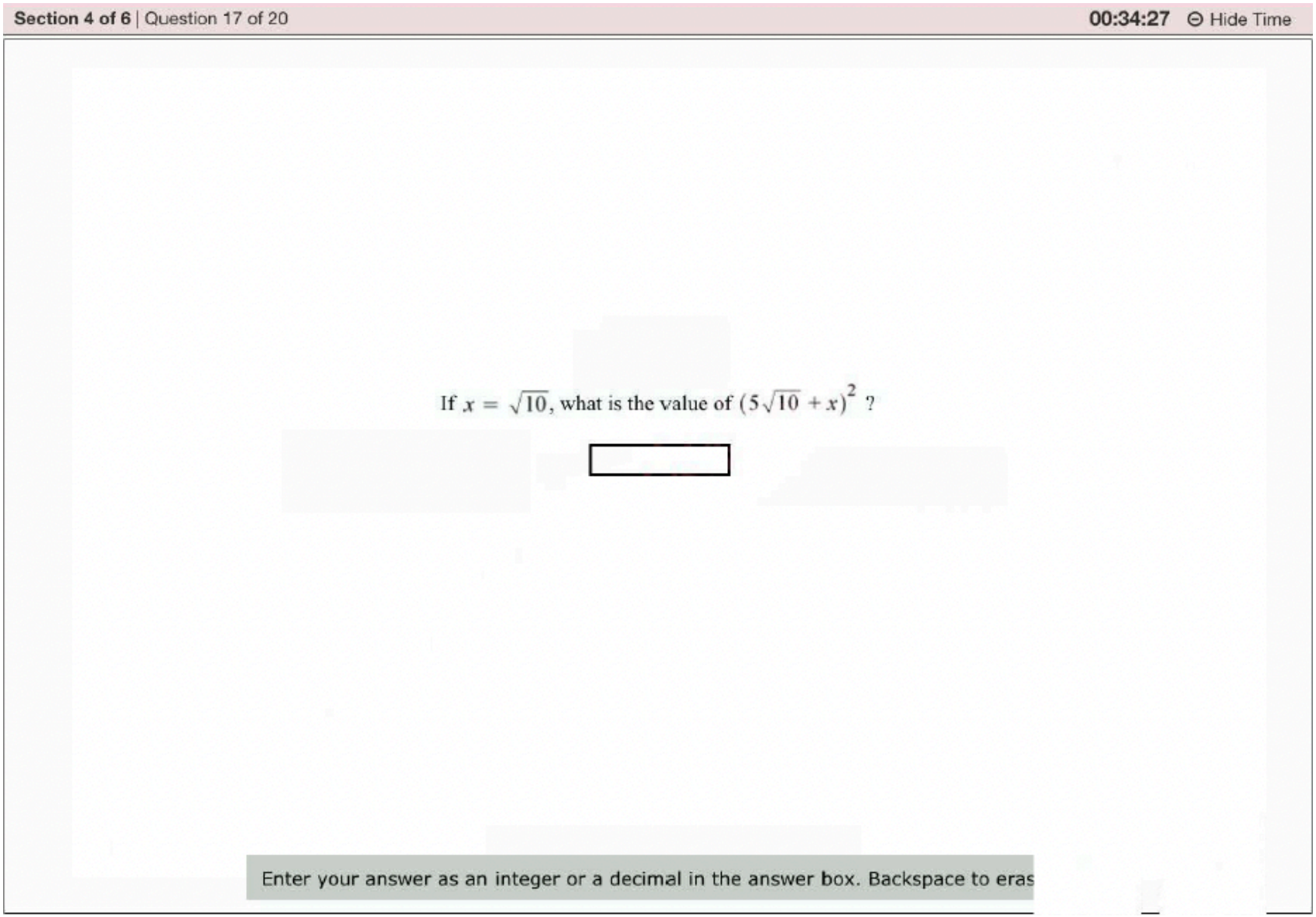
Indicate all such values.

- [ ] 0.35
- [ ] 0.42
- [ ] 0.57
- [ ] 0.75
- [ ] 0.98
- [ ] 1.06

Select one or more answer choice.

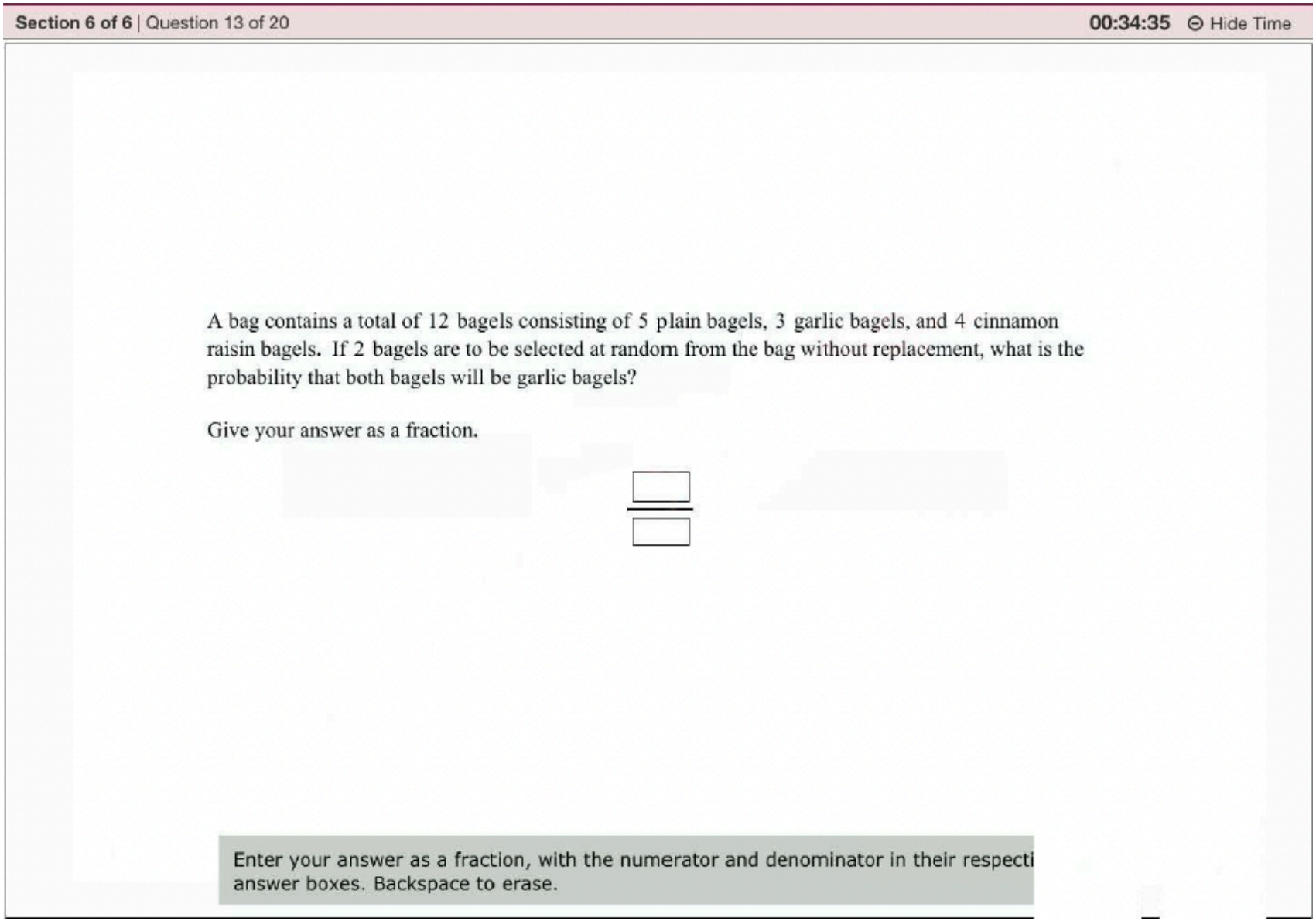
Numeric Entry Questions 数字填空题

注意单位；近似精度；Transfer Display；只能填一个整数或者分数



Numeric Entry Questions 数字填空题

不用化简；分子分母分开填；



Data Interpretation Sets 数据解读题套题

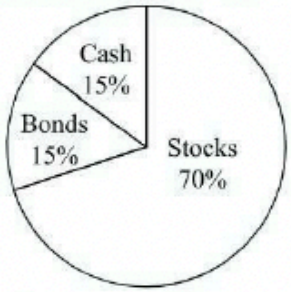
多道题目对应一组数据; 可单选，不定项，或者填空

Section 6 of 6 | Question 14 of 20 00:34:33 ⊖ Hide Time

Questions 14 to 16 are based on the following data.

Assets in Mutual Fund *X*, January 1, 2012

Distribution of Total Assets



Total Assets: $15 billion

(1 billion = 10^9)

Distribution of Stock Assets in Fund *X*

Foreign Stocks	25%
Domestic Stocks:	
Technology	15%
Finance	10%
Utilities	18%
Retail	10%
Health Care	17%
Other	5%

Approximately what was the amount of assets in domestic utilities stocks in Fund *X*?

- ○ $0.12 billion
- ○ $0.19 billion
- ○ $1.2 billion
- ○ $1.9 billion
- ○ $11.5 billion

Select one answer

How to Use the On-screen Calculator

The End

Questions? Comments?