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Sandra Luna McCune, PhD  
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# 1,001 GMAT<sup>®</sup> Practice Questions

**by Sandra Luna McCune, PhD,  
and Shannon Reed, MA, MFA**

**for  
dummies<sup>®</sup>**  
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# 1,001 GMAT® Practice Questions For Dummies®

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# Introduction

Welcome to *1,001 GMAT Practice Questions For Dummies*. Pay no mind to the *dummies* part of the title. Obviously, if you're gearing up to tackle an MBA program, you're no dummy. You've already successfully finished high school and college, and you might even have a master's degree. Now you're ready to take your education to a higher level.

What you have probably learned after skimming through admissions requirements is that many MBA programs include scores from the Graduate Management Admissions Test (GMAT) as an admissions requirement. So how do you prepare for such a rigorous exam? Clearly, you need to become familiar with the topics covered and the types of questions you'll be faced with. You need practice accompanied by pointers on how best to answer the questions. This book provides all the guidance you need. Along with its 1,001 relevant practice opportunities, this book gives answers and detailed explanations that show simple and effective ways to solve the often challenging GMAT questions.

## What You'll Find

This book serves as comprehensive, standalone preparation for the GMAT, or you can use it in conjunction with the latest edition of *GMAT For Dummies* (Wiley). Either way, this book helps you identify question types and content areas you need to work on. The practice questions are constructed to closely resemble the actual exam questions in both format and level of difficulty so that you will know what to expect when you take your exam. The abundance of questions gives you ample opportunity to practice until you're feeling confident and prepared on the big day.

If you miss a question, read the answer explanation and try to figure out where you went wrong. Go back and solve it again, this time avoiding your earlier mistake. Read the answer explanations for the questions you get right as well. Often, the answer explanation will reveal not only the solution to the question but also how to answer it most efficiently. This strategy helps you internalize concepts and skills.

Whatever you do, keep a positive spirit. This book contains challenging questions not unlike those you might encounter on the GMAT. These questions are not meant to discourage you but rather to show you how to solve and master them.

## How the Questions Are Organized

This book has two parts. The first part contains 1,001 practice questions divided among seven chapters. These chapters are organized around the four sections of the GMAT: Analytical Writing

Assessment (AWA), Integrated Reasoning (IR), Quantitative, and Verbal. The second part of the book contains the answers and detailed answer explanations.

The AWA requires you to write an analytical critique of a presented argument. The IR questions require you to apply analytical reasoning and math skills to various data-intensive scenarios. The Quantitative section consists of problem solving and data sufficiency questions. These questions test your knowledge and understanding of arithmetic, basic probability and statistics, algebra, and geometry. The Verbal section consists of reading comprehension, sentence correction, and critical reasoning questions. These questions test your ability to read and comprehend unfamiliar written material, to recognize and apply the basic rules of standard written English, and to use logical reasoning and critical thinking.

## Beyond the Book

Your purchase of this book gives you so much more than a thousand (and one) questions you can work on to improve your GMAT performance. It comes also with a free, one-year subscription to hundreds of practice questions online. Not only can you access this digital content anytime you want, on whichever device is available to you, but you can also track your progress and view personalized reports that show you which concepts you need to study the most.

### What you'll find online

The online practice that comes free with this book offers the same 1,001 questions and answers that are available here. The benefit of the online questions is that you can customize your online practice to focus on the topics that give you the most trouble. You get to choose the types of questions and the number of questions you want to practice. The online program tracks how many questions you answer correctly versus incorrectly so that you can monitor your progress and spend time studying exactly what you need.

This product also comes with an online Cheat Sheet that helps you increase your odds of performing well on the GMAT. To get the Cheat Sheet, go to [www.dummies.com](http://www.dummies.com) and type “1,001 GMAT Practice Questions For Dummies cheat sheet” in the search box. (No access code required. You can benefit from this info before you register.)

### How to register

To gain access to the online version of all 1,001 practice questions in this book, all you have to do is register. Just follow these simple steps:

1. **Register your book or ebook at Dummies.com to get your PIN. Go to [www.dummies.com/go/getaccess](http://www.dummies.com/go/getaccess).**
2. **Select your product from the dropdown list on that page.**
3. **Follow the prompts to validate your product, and then check your email for a confirmation message that includes your PIN and instructions for logging in.**

If you do not receive this email within two hours, please check your spam folder before contacting us through our Technical Support website at <http://support.wiley.com> or by phone at 877-762-2974.

Now you're ready to go! You can come back to the practice material as often as you want — simply log on with the username and password you created during your initial login. No need to enter the access code a second time.

Your registration is good for one year from the day you activate your PIN.

## Where to Go for Additional Help

The solutions to the practice problems in this book are meant to walk you through how to get the right answers. They're not meant to teach the material. If certain concepts are unfamiliar to you, you can find help at [www.dummies.com](http://www.dummies.com). Just type "GMAT" into the search box to turn up GMAT-related information.

If you need more detailed instruction, check out the previously mentioned *GMAT For Dummies*.



# 1

## The Questions

**IN THIS PART . . .**

Practice analytical writing questions.

Answer integrated reasoning questions.

Work on quantitative questions involving problem solving and data sufficiency.

Tackle reading comprehension and sentence correction questions.

Practice critical reasoning questions.



# Chapter 1

## Analytical Writing Assessment

**T**he Analytical Writing Assessment on the GMAT is one question, presented at the beginning of your test. You are given the question prompt and then a reading passage of several paragraphs that presents an argument. Your task is to write a response to that passage that analyzes the logic presented in the passage. You need to agree or disagree with the argument's logic and explain why the flaws you see in the argument are problematic.

### The Problems You'll Work On

When working through the Analytical Writing Assessment questions presented here, be prepared to do the following:

- » Read a longer passage than at any other point on the GMAT. It will present an argument, often around something related to business, education, or science, and that argument will contain flaws.
- » Analyze the argument for logical flaws and outline a response.
- » Write a four- to six-paragraph essay based on your outline in which you agree or disagree with the argument, and analyze the flaws within it.
- » Proofread the essay carefully before submitting it.

### What to Watch Out For

To increase your chances of scoring well, make sure to do the following:

- » Firmly agree or disagree with the argument.
- » Give yourself enough time to plan, write, and proofread your essay.
- » Don't get drawn into an entirely personal response. Your essay must show logic and intelligence.

*For Questions 1 through 5, you will be asked to write a critique of the argument presented below. You may, for example, consider what questionable assumptions underlie the thinking, what alternative explanations or counterexamples might weaken the conclusion, or what sort of evidence could help strengthen or refute the argument.*

*Read the argument and the instructions that follow it, and then make any notes that will help you plan your response. Write your response on a separate sheet of paper. If possible, type your essay on a computer or laptop. Observe the 30-minute time limit.*

1. A speaker at a role playing games event made the following statement:

“Although role playing games — or RPGs — such as Dungeons & Dragons have been widely criticized for having a negative effect on our youth, encouraging them to be ‘nerds without social skills’ as one reporter put it, this is not a valid viewpoint. If we look at a survey from last year, more young adults who play RPGs value social skills and courtesy than ever before by almost a 2 to 1 margin compared to the same survey from 10 years ago. This evidence suggests that RPGs are actually promoting social interaction and friendship among the young adults playing them. More people should play them.”

Discuss how well-reasoned you find this argument. In your discussion, be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative examples or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

2. The following appeared in a promotional mailing sent by the publishers of a community directory, encouraging local businesses to buy an ad in the next edition:

“One of the best ways to reach new customers is also one of the cheapest. That’s why it makes sense to purchase an ad in the Stipeville Business Directory! Local business owners who have purchased an ad in years past will tell you the same thing! Did you know that three of our town’s top-ten doctors, two of our top-five caterers, and several of our top pet groomers bought ads last year? And we don’t want to name names, but a local hairdresser forgot to place her ad before our deadline last year, and she reports that her business dropped by 5%! Well, she’s buying an ad this year, and so should you! The Stipesville Business Directory is a must-buy for all local businesses!”

Discuss how well-reasoned you find this argument. In your discussion, be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative examples or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

3. A school board member recently made the following statement at a meeting:

“I’m concerned about how poorly the students at Richmeade Senior High School are scoring on their standardized tests. Their math tests scores were, in particular, dreadful, scoring about 20 points lower than the students at Richmeade Prep School, which you all know is just down the road. I’ve been investigating what the Prep School does differently and noticed that in April, they do not offer any extracurricular or special activities, including school field trips, dances, and shows, before the tests are given. They also require all students to take the exam in order to graduate. Therefore, I propose that we also ban extracurricular and special activities for the month of May since we give the test in June. That should help our students focus.”

Discuss how well-reasoned you find this argument. In your discussion, be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative examples or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

4. A recent column in a conventional cosmetic industry newsletter noted:

“Many customers buy organic makeup products because they are concerned about the consequences of the widespread use of chemical class Zbt in the conventional cosmetics industry. It’s part of our job to convince those customers that they’re misinformed. You might begin by pointing out that while chemical class Zbt has been shown — in very high dosages — to cause scarring in animal studies, no study has ever show that its presence causes scarring on human test subjects. You can conclude by noting that there is clearly no reason for even the most concerned customer to waste her money on organic makeup products. Perfectly safe makeup, you can say, is available without the hassle of searching out organic cosmetics.”

Discuss how well-reasoned you find this argument. In your discussion, be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative examples or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

5. A banking executive recently made the following comments in an address to shareholders:

“North Bank was once run out of a single storefront on Main Street. Now we have five satellite locations around North Town. However, North Bank was more profitable when it only had that single storefront than it is today with 6 locations. Therefore, I’m proposing that we close our five satellite locations and move all of our business to our original location. This will improve our profitability and customers will enjoy the nostalgic feel of doing their business at a single location.”

Discuss how well-reasoned you find this argument. In your discussion, be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative examples or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

## Chapter 2

# Integrated Reasoning

The GMAT Integrated Reasoning (IR) section consists of 12 multiple-part questions that must be completed in 30 minutes. Your answers for each of the multiple parts of an IR question must all be correct to get credit for the question. You have access to an onscreen calculator for this section of the test. The IR questions require you to apply critical reasoning and math skills to various data-intensive scenarios. The questions are presented in the following four different formats:

- » **Table Analysis** questions present data in sortable tables. You use the data to choose one of two opposing answer choices for each of three statements.
- » **Two-Part Analysis** questions present a short written explanation of a situation or math problem in which two portions of related information are unknown. You are asked to make two choices, one for each of the unknown portions.
- » **Graphics Interpretation** questions present information in a graph or other visual image. You must complete two missing pieces of information in one or two statements by choosing from drop-down menus.
- » **Multi-Source Reasoning** questions present several sources of information, such as text material, graphs, diagrams, charts, and tables. You must synthesize the information and draw logical conclusions to answer three questions. Two of the questions are multiple-part questions. For these two questions, you choose one of two opposing answer choices for each of three statements. The other question is a five-option multiple-choice question, for which you must select the one best answer choice.

## The Problems You'll Work On

When working through the IR questions in this chapter, be prepared to

- » Read and understand graphical or visual representations of information.
- » Recognize cause and effect.
- » Identify relationships in information.

# What to Watch Out For

Don't make these mistakes:

- » Being confused because questions present excess data that you don't need.
- » Answering questions based on your personal knowledge instead of on the information given.
- » Failing to pace yourself so that you can answer all the questions in the given timeframe.

6. The table shows data from the U.S. Census Bureau, Manufacturing and Trade Inventories and Sales, May 12, 2017, report on estimated sales, inventories, and inventories-to-sales ratios for domestic activities of retailers in the U.S. To make it easier to observe underlying trends and other non-seasonal movements, the data are adjusted for seasonal variations and, in the case of sales, for trading-day differences and holiday variations. The inventories to sales ratios show the relationship of the end-of-month values of inventory to the monthly sales. These ratios can be interpreted as indicating the number of months of inventory that are on hand. For example, a ratio of 2.5 indicates that a business has enough merchandise on hand to cover two and a half months of sales (Source: U.S. Bureau of the Census, Merchant Wholesalers: Inventories to Sales Ratio).

*On the actual exam, the table is interactive, and you can sort it in ascending order by selecting the column title you want to sort by from the drop-down menu above the table. The table below is shown sorted by different column titles to simulate the exam.*

Sorted by Kind of Business (Column 1)

Kind of Business	Sales			Inventories			Inventories/Sales Ratios		
	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016
Building materials, and garden equipment & supplies	30,864	31,402	29,628	54,188	54,139	52,195	1.76	1.72	1.76
Clothing stores	21,504	21,111	21,242	53,190	53,096	52,790	2.47	2.52	2.49
Food & beverage stores	59,583	59,157	57,406	46,812	46,841	45,797	0.79	0.79	0.80
Furniture, home furnishings, and electrical, & appliance stores	17,618	17,306	17,278	27,400	27,527	27,459	1.56	1.59	1.59
General merchandise stores	56,466	56,605	56,337	81,027	82,403	52,790	1.43	1.43	1.46
Motor vehicle & parts dealers	96,423	96,895	92,140	219,709	217,850	203,835	2.28	2.25	2.21

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Sorted by Inventories March 2017 (Column 5)

Kind of Business	Sales			Inventories			Inventories/Sales Ratios		
	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016
Furniture, home furnishings, and electrical, & appliance stores	17,618	17,306	17,278	27,400	27,527	27,459	1.56	1.59	1.59
Food & beverage stores	59,583	59,157	57,406	46,812	46,841	45,797	0.79	0.79	0.80
Clothing stores	21,504	21,111	21,242	53,190	53,096	52,790	2.47	2.52	2.49
Building materials, and garden equipment & supplies	30,864	31,402	29,628	54,188	54,139	52,195	1.76	1.72	1.76
General merchandise stores	56,466	56,605	56,337	81,027	82,403	52,790	1.43	1.43	1.46
Motor vehicle & parts dealers	96,423	96,895	92,140	219,709	217,850	203,835	2.28	2.25	2.21

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Sorted by Inventories/Sales Ratios March 2017 (Column 8)

Kind of Business	Sales			Inventories			Inventories/Sales Ratios		
	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016	Mar. 2017	Feb. 2017	Mar. 2016
Food & beverage stores	59,583	59,157	57,406	46,812	46,841	45,797	0.79	0.79	0.80
General merchandise stores	56,466	56,605	56,337	81,027	82,403	52,790	1.43	1.43	1.46
Furniture, home furnishings, and electrical, & appliance stores	17,618	17,306	17,278	27,400	27,527	27,459	1.56	1.59	1.59
Building materials, and garden equipment & supplies	30,864	31,402	29,628	54,188	54,139	52,195	1.76	1.72	1.76
Motor vehicle & parts dealers	96,423	96,895	92,140	219,709	217,850	203,835	2.28	2.25	2.21
Clothing stores	21,504	21,111	21,242	53,190	53,096	52,790	2.47	2.52	2.49

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For each of the following statements, select *Yes* if the statement is true based solely on the information in the table. Otherwise, select *No*.

	Yes	No	
6.1	(A)	(B)	The percent change in sales for the combined domestic activities of retailer businesses from March 2016 to March 2017 is approximately 3.1.
6.2	(A)	(B)	The business that has the highest March 2017 inventory also has the highest March 2017 Inventories/Sales Ratio.
6.3	(A)	(B)	The business that is likely to have less than enough merchandise on hand to cover one month of sales is general merchandise stores.

7. The following table shows stock quotations for 20 companies at the end of a particular trading day in 2018. The table contains the following information: 52-Wk High, the highest price at which a stock has traded over the previous 52 weeks; 52-Wk Low, the lowest price at which a stock has traded over the previous 52 weeks; Stock, the name of the company; Volume (100s), the total number of 100 shares traded that day; High, the highest price of the stock for the day; Low, the lowest price of the stock for the day; Close, the last recorded price of the day when the market closed; and Net Change, the difference between the closing prices of the day and the previous trading day.

*On the actual exam, the table is interactive, and you can sort it in ascending order by selecting the column title you want to sort by from the drop-down menu above the table. The table below is shown sorted by different column titles to simulate the exam.*

Sorted by Stock (Column 3)

52-Wk High	52-Wk Low	Stock	Volume (100s)	High	Low	Close	Net Change
164.50	107.62	Company A	6,221	154.75	152.60	154.63	1.84
72.62	36.45	Company B	2,315	56.45	56.45	56.45	0.83
27.62	20.00	Company C	154	24.32	23.75	24.05	−0.56
16.25	8.25	Company D	11,872	9.78	8.94	9.05	−0.09
119.25	89.00	Company E	3,475	101.75	99.78	100.25	1.77
22.12	15.25	Company F	4,289	18.23	18.20	18.23	0.86
53.70	41.00	Company G	329	42.79	39.65	39.65	0.05
96.78	35.12	Company H	2,186	88.41	85.38	86.75	1.29
52.24	38.27	Company I	25	50.27	50.00	50.00	0.67
46.50	25.43	Company J	308	25.59	24.75	24.75	0.05
51.86	30.76	Company K	1,097	32.99	30.23	32.55	−0.02
33.18	17.91	Company L	2,086	20.24	20.24	20.24	0.23
220.37	124.30	Company M	2,290	186.15	184.74	186.15	−1.45
136.09	80.39	Company N	9,875	96.94	96.91	96.93	2.00
127.56	101.20	Company O	380	109.67	107.73	108.90	1.01
4.26	2.50	Company P	10,764	3.25	3.21	3.21	0.03
98.73	41.78	Company Q	2,712	61.48	61.45	61.45	3.35
83.00	42.65	Company R	3,612	55.27	55.20	55.27	0.02
88.95	74.67	Company S	1,087	79.65	78.54	78.52	1.15
187.95	122.34	Company T	2,877	180.69	178.52	179.45	0.32

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Sorted by Volume (Column 4)

52-Wk High	52-Wk Low	Stock	Volume (100s)	High	Low	Close	Net Change
52.24	38.27	Company I	25	50.27	50.00	50.00	0.67
27.62	20.00	Company C	154	24.32	23.75	24.05	−0.56
46.50	25.43	Company J	308	25.59	24.75	24.75	0.05
53.70	41.00	Company G	329	42.79	39.65	39.65	0.05
127.56	101.20	Company O	380	109.67	107.73	108.90	1.01
88.95	74.67	Company S	1,087	79.65	78.54	78.52	1.15
51.86	30.76	Company K	1,097	32.99	30.23	32.55	−0.02
33.18	17.91	Company L	2,086	20.24	20.24	20.24	0.23
96.78	35.12	Company H	2,186	88.41	85.38	86.75	1.29
220.37	124.30	Company M	2,290	186.15	184.74	186.15	−1.45
72.62	36.45	Company B	2,315	56.45	56.45	56.45	0.83
98.73	41.78	Company Q	2,712	61.48	61.45	61.45	3.35
187.95	122.34	Company T	2,877	180.69	178.52	179.45	0.32
119.25	89.00	Company E	3,475	101.75	99.78	100.25	1.77
83.00	42.65	Company R	3,612	55.27	55.20	55.27	0.02
22.12	15.25	Company F	4,289	18.23	18.20	18.23	0.86
164.50	107.62	Company A	6,221	154.75	152.60	154.63	1.84
136.09	80.39	Company N	9,875	96.94	96.91	96.93	2.00
4.26	2.50	Company P	10,764	3.25	3.21	3.21	0.03
16.25	8.25	Company D	11,872	9.78	8.94	9.05	−0.09

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Sorted by Close (Column 7)

52-Wk High	52-Wk Low	Stock	Volume (100s)	High	Low	Close	Net Change
4.26	2.50	Company P	10,764	3.25	3.21	3.21	0.03
16.25	8.25	Company D	11,872	9.78	8.94	9.05	−0.09
22.12	15.25	Company F	4,289	18.23	18.20	18.23	0.86
33.18	17.91	Company L	2,086	20.24	20.24	20.24	0.23
27.62	20.00	Company C	154	24.32	23.75	24.05	−0.56
46.50	25.43	Company J	308	25.59	24.75	24.75	0.05
51.86	30.76	Company K	1,097	32.99	30.23	32.55	−0.02
53.70	41.00	Company G	329	42.79	39.65	39.65	0.05
52.24	38.27	Company I	25	50.27	50.00	50.00	0.67
83.00	42.65	Company R	3,612	55.27	55.20	55.27	0.02
72.62	36.45	Company B	2,315	56.45	56.45	56.45	0.83
98.73	41.78	Company Q	2,712	61.48	61.45	61.45	3.35
88.95	74.67	Company S	1,087	79.65	78.54	78.52	1.15
96.78	35.12	Company H	2,186	88.41	85.38	86.75	1.29
136.09	80.39	Company N	9,875	96.94	96.91	96.93	2.00
119.25	89.00	Company E	3,475	101.75	99.78	100.25	1.77
127.56	101.20	Company O	380	109.67	107.73	108.90	1.01
164.50	107.62	Company A	6,221	154.75	152.60	154.63	1.84
187.95	122.34	Company T	2,877	180.69	178.52	179.45	0.32
220.37	124.30	Company M	2,290	186.15	184.74	186.15	−1.45

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Sorted by Net Change (Column 8)

52-Wk High	52-Wk Low	Stock	Volume (100s)	High	Low	Close	Net Change
220.37	124.30	Company M	2,290	186.15	184.74	186.15	−1.45
27.62	20.00	Company C	154	24.32	23.75	24.05	−0.56
16.25	8.25	Company D	11,872	9.78	8.94	9.05	−0.09
51.86	30.76	Company K	1,097	32.99	30.23	32.55	−0.02
83.00	42.65	Company R	3,612	55.27	55.20	55.27	0.02
4.26	2.50	Company P	10,764	3.25	3.21	3.21	0.03
46.50	25.43	Company J	308	25.59	24.75	24.75	0.05
53.70	41.00	Company G	329	42.79	39.65	39.65	0.05
33.18	17.91	Company L	2,086	20.24	20.24	20.24	0.23
187.95	122.34	Company T	2,877	180.69	178.52	179.45	0.32
52.24	38.27	Company I	25	50.27	50.00	50.00	0.67
72.62	36.45	Company B	2,315	56.45	56.45	56.45	0.83
22.12	15.25	Company F	4,289	18.23	18.20	18.23	0.86
127.56	101.20	Company O	380	109.67	107.73	108.90	1.01
88.95	74.67	Company S	1,087	79.65	78.54	78.52	1.15
96.78	35.12	Company H	2,186	88.41	85.38	86.75	1.29
119.25	89.00	Company E	3,475	101.75	99.78	100.25	1.77
164.50	107.62	Company A	6,221	154.75	152.60	154.63	1.84
136.09	80.39	Company N	9,875	96.94	96.91	96.93	2.00
98.73	41.78	Company Q	2,712	61.48	61.45	61.45	3.35

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Each of the following options consists of a stock and a quote category. For each option, select *Less than median* if, based on the information in the table, the value of the stock's quote is less than the median of the 20 stocks for that quote category on this day. Otherwise, select *Greater than or equal to median*.

	Less than median	Greater than or equal to median	
7.1	(A)	(B)	Company B, Volume (100s)
7.2	(A)	(B)	Company G, Close
7.3	(A)	(B)	Company L, Net Change

8. The following table shows first quarter sales information from 15 retail stores in a metropolitan area. Each of the 15 stores is open 9 a.m. to 9 p.m., Sunday through Saturday. The table contains monthly sales amounts (in thousands of dollars), and the average number of daily sales for January, February, and March of 2018.

*On the actual exam, the table is interactive, and you can sort it in ascending order by selecting the column title you want to sort by from the drop-down menu above the table. The table below is shown sorted by different column titles to simulate the exam.*

Sorted by Store (Column 1)

Store	Total sales amount, Jan.	Total sales amount, Feb.	Total sales amount, Mar.	Average number of daily sales, Jan.	Average number of daily sales, Feb.	Average number of daily sales, Mar.
Store A	\$ 425,215	\$ 326,400	\$ 236,160	220	170	123
Store B	\$ 108,000	\$ 93,000	\$ 105,000	144	124	140
Store C	\$ 139,200	\$ 117,120	\$ 145,920	145	122	152
Store D	\$ 182,040	\$ 145,140	\$ 137,760	148	118	112
Store E	\$ 224,640	\$ 193,440	\$ 184,080	144	124	118
Store F	\$ 141,570	\$ 128,700	\$ 193,050	143	130	195
Store G	\$ 219,960	\$ 190,360	\$ 235,560	141	122	151
Store H	\$ 255,150	\$ 241,920	\$ 189,000	135	128	100
Store I	\$ 77,220	\$ 70,200	\$ 89,640	143	130	166
Store J	\$ 324,120	\$ 254,040	\$ 313,170	148	116	143
Store K	\$ 120,120	\$ 99,120	\$ 92,400	143	118	110
Store L	\$ 160,950	\$ 148,740	\$ 127,650	145	134	115
Store M	\$ 202,860	\$ 182,160	\$ 234,600	147	132	170
Store N	\$ 261,000	\$ 233,160	\$ 309,720	150	134	178
Store O	\$ 116,580	\$ 114,840	\$ 89,610	134	132	103

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Sorted by Average Number of Daily Sales, Jan. (Column 5)

Store	Total sales amount, Jan.	Total sales amount, Feb.	Total sales amount, Mar.	Average number of daily sales, Jan.	Average number of daily sales, Feb.	Average number of daily sales, Mar.
Store O	\$ 116,580	\$ 114,840	\$ 89,610	134	132	103
Store H	\$ 255,150	\$ 241,920	\$ 189,000	135	128	100
Store G	\$ 219,960	\$ 190,360	\$ 235,560	141	122	151
Store K	\$ 120,120	\$ 99,120	\$ 92,400	143	118	110
Store I	\$ 77,220	\$ 70,200	\$ 89,640	143	130	166
Store F	\$ 141,570	\$ 128,700	\$ 193,050	143	130	195
Store E	\$ 224,640	\$ 193,440	\$ 184,080	144	124	118
Store B	\$ 108,000	\$ 93,000	\$ 105,000	144	124	140
Store L	\$ 160,950	\$ 148,740	\$ 127,650	145	134	115
Store C	\$ 139,200	\$ 117,120	\$ 145,920	145	122	152
Store M	\$ 202,860	\$ 182,160	\$ 234,600	147	132	170
Store D	\$ 182,040	\$ 145,140	\$ 137,760	148	118	112
Store J	\$ 324,120	\$ 254,040	\$ 313,170	148	116	143
Store N	\$ 261,000	\$ 233,160	\$ 309,720	150	134	178
Store A	\$ 425,215	\$ 326,400	\$ 236,160	220	170	123

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Sorted by Average Number of Daily Sales, Mar. (Column 7)

Store	Total sales amount, Jan.	Total sales amount, Feb.	Total sales amount, Mar.	Average number of daily sales, Jan.	Average number of daily sales, Feb.	Average number of daily sales, Mar.
Store H	\$ 255,150	\$ 241,920	\$ 189,000	135	128	100
Store O	\$ 116,580	\$ 114,840	\$ 89,610	134	132	103
Store K	\$ 120,120	\$ 99,120	\$ 92,400	143	118	110
Store D	\$ 182,040	\$ 145,140	\$ 137,760	148	118	112
Store L	\$ 160,950	\$ 148,740	\$ 127,650	145	134	115
Store E	\$ 224,640	\$ 193,440	\$ 184,080	144	124	118
Store A	\$ 425,215	\$ 326,400	\$ 236,160	220	170	123
Store B	\$ 108,000	\$ 93,000	\$ 105,000	144	124	140
Store J	\$ 324,120	\$ 254,040	\$ 313,170	148	116	143
Store G	\$ 219,960	\$ 190,360	\$ 235,560	141	122	151
Store C	\$ 139,200	\$ 117,120	\$ 145,920	145	122	152
Store I	\$ 77,220	\$ 70,200	\$ 89,640	143	130	166
Store M	\$ 202,860	\$ 182,160	\$ 234,600	147	132	170
Store N	\$ 261,000	\$ 233,160	\$ 309,720	150	134	178
Store F	\$ 141,570	\$ 128,700	\$ 193,050	143	130	195

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Sorted by Total Sales Amount, Feb. (Column 3)

Store	Total sales amount, Jan.	Total sales amount, Feb.	Total sales amount, Mar.	Average number of daily sales, Jan.	Average number of daily sales, Feb.	Average number of daily sales, Mar.
Store I	\$ 77,220	\$ 70,200	\$ 89,640	143	130	166
Store B	\$ 108,000	\$ 93,000	\$ 105,000	144	124	140
Store K	\$ 120,120	\$ 99,120	\$ 92,400	143	118	110
Store O	\$ 116,580	\$ 114,840	\$ 89,610	134	132	103
Store C	\$ 139,200	\$ 117,120	\$ 145,920	145	122	152
Store F	\$ 141,570	\$ 128,700	\$ 193,050	143	130	195
Store D	\$ 182,040	\$ 145,140	\$ 137,760	148	118	112
Store L	\$ 160,950	\$ 148,740	\$ 127,650	145	134	115
Store M	\$ 202,860	\$ 182,160	\$ 234,600	147	132	170
Store G	\$ 219,960	\$ 190,360	\$ 235,560	141	122	151
Store E	\$ 224,640	\$ 193,440	\$ 184,080	144	124	118
Store N	\$ 261,000	\$ 233,160	\$ 309,720	150	134	178
Store H	\$ 255,150	\$ 241,920	\$ 189,000	135	128	100
Store J	\$ 324,120	\$ 254,040	\$ 313,170	148	116	143
Store A	\$ 425,215	\$ 326,400	\$ 236,160	220	170	123

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Sorted by Average Number of Daily Sales, Feb. (Column 6)

Store	Total sales amount, Jan.	Total sales amount, Feb.	Total sales amount, Mar.	Average number of daily sales, Jan.	Average number of daily sales, Feb.	Average number of daily sales, Mar.
Store J	\$ 324,120	\$ 254,040	\$ 313,170	148	116	143
Store K	\$ 120,120	\$ 99,120	\$ 92,400	143	118	110
Store D	\$ 182,040	\$ 145,140	\$ 137,760	148	118	112
Store C	\$ 139,200	\$ 117,120	\$ 145,920	145	122	152
Store G	\$ 219,960	\$ 190,360	\$ 235,560	141	122	151
Store B	\$ 108,000	\$ 93,000	\$ 105,000	144	124	140
Store E	\$ 224,640	\$ 193,440	\$ 184,080	144	124	118
Store H	\$ 255,150	\$ 241,920	\$ 189,000	135	128	100
Store I	\$ 77,220	\$ 70,200	\$ 89,640	143	130	166
Store F	\$ 141,570	\$ 128,700	\$ 193,050	143	130	195
Store O	\$ 116,580	\$ 114,840	\$ 89,610	134	132	103
Store M	\$ 202,860	\$ 182,160	\$ 234,600	147	132	170
Store L	\$ 160,950	\$ 148,740	\$ 127,650	145	134	115
Store N	\$ 261,000	\$ 233,160	\$ 309,720	150	134	178
Store A	\$ 425,215	\$ 326,400	\$ 236,160	220	170	123

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For each of the following statements, select Yes if the statement is true based solely on the information in the table. Otherwise, select No.

	Yes	No	
8.1	(A)	(B)	The median average number of daily sales in January is greater than the median average number of daily sales in March.
8.2	(A)	(B)	The store with the highest total sales in February also had the highest average number of daily sales in February.
8.3	(A)	(B)	More than half the stores reported that the total sales amount in February exceeded the total sales amount in March.

9. Company X currently has 15,000 components in inventory, and company Y currently has 16,000 components in inventory. The number of components produced by company X and the number of components produced by company Y are increasing monthly, each at its own constant rate. Forecasters project that if each company continues to produce an increased number of components at its constant rate, in 20 months both companies will have the same number of components for the first time. Thereafter, in subsequent months, company X will have more components in inventory than company Y.

In the table below, indicate by appropriate selections in the first and second columns which of the rates of increase in the third column is a rate of increase for company X, and which is a rate of increase for company Y that together are consistent with the forecasters' performance projections. Make only two selections, one in each column.

9.1 Company X	9.2 Company Y	Rate of increase (components per month)
(A)	(A)	30
(B)	(B)	50
(C)	(C)	200
(D)	(D)	250
(E)	(E)	280

- 10.** A teacher is selecting from among items 1 through 6 to purchase with school funds for the classroom mathematics center. The principal has stated the following conditions:

- (A) At least one item, but no more than five items must be selected.
- (B) If item 1 is selected, then either item 3 or item 4 must be selected, but not both.
- (C) If item 4 is not selected, then item 2 must be selected.
- (D) If item 6 is selected, then item 3 cannot be selected.
- (E) If item 5 is selected, then either item 1 or item 6 must be selected, but not both.

In the table below, indicate by appropriate selections in the first and second columns which number of items in the third column is the minimum number of items that must be selected if item 1 is selected, and which number is the maximum possible number of items that can be selected if item 5 is selected. Make only two selections, one in each column.

10.1 Minimum	10.2 Maximum	Number of items
(A)	(A)	one
(B)	(B)	two
(C)	(C)	three
(D)	(D)	four
(E)	(E)	five

- 11.** A chain discount is a series of discounts applied to the list price of an item. Chain discounts of  $R\%$  and  $P\%$  are equivalent to  $100\% - (100\% - R\%)(100\% - P\%)$ . Ace Company gives chain discounts of 20 percent and 5 percent on the list price of all tools purchased. Deuce Company gives chain discounts of 15 percent and 10 percent on the list price of all tools purchased. For each of the two companies, how much is saved for a purchase of tools that have list prices totally \$500?

In the table below, indicate by appropriate selections in the first and second columns which of the savings amounts in the third column is the savings amount if the purchase is from Ace Company, and which is the savings amount if the purchase is from Deuce Company. Make only two selections, one in each column.

11.1 Ace Company	11.2 Deuce Company	Savings amount
(A)	(A)	\$62.50
(B)	(B)	\$100.00
(C)	(C)	\$117.50
(D)	(D)	\$120.00
(E)	(E)	\$125.00