McKinsey Problem Solving Test Coaching Guide

THREE CORE AREAS ON WHICH TO FOCUS

We have identified three areas with associated key actions, that when properly combined are likely to improve your performance on the problem solving test. These are:

- **Absorbing:** Identifying essentials

- **Solving:** Employing shortcuts

- **Executing:** Managing time

Absorbing: Identifying essentials

- **Read the questions before the text/ graphs/ tables**. Text and exhibits are followed by a set of questions. Read the questions and scan the answers in a section **_before_** reading the text and exhibits. As you read, circle the important words. This will allow you to read the text and data/ graphs/ tables with a purpose.

- **Speed-read text**. As you read through the text quickly, circle or underline any information that you think is relevant to answering the questions. You do not have to read every word in order to get the gist of the textual information.

- **Pay close attention to data/ graphs/ tables**. Data/ graphs/ tables are likely to hold information needed to answer many of the test questions. When reading this type of information ensure you have noted the title, legend, labels of the axes and the units for each item.

Solving: Employing shortcuts

- **Structure your approach**. Before answering a question decide on your approach. Since every second counts you do not want to waste time working out things you do not need to, or simply churning data. Make sure you have truly understood what you need to work out and how you will do it before beginning to solve.

- **Approximate**. Often questions may seem to call for you to perform complicated maths. Given the time limit, this would be very difficult. There will often be a shortcut that will allow you to save time and avoid tricky calculations. Often the shortcut involves rounding numbers to make them more manageable.

- **Eliminate.** Your approach for many questions will be to eliminate incorrect answers in order to find the correct answer. By working out approximate answers as suggested above you can rule out some options quickly and increase the odds of a correct choice.

Executing: Managing time

The real test contains 26 questions and has a 60 minute time limit, and you must fill in your answers using bubbles on a separate answer sheet. With only a little over 2 minutes per question, there is clearly time pressure. A few techniques can help you to better manage how you use your time.

- **Keep calculations organized.** When you need to perform calculations during the test, keep your work for each question to a separate, well-marked area. This will keep your calculations organised, reducing the time you spend checking your work and searching for information you have already recorded/worked out.

- **Transfer answers in groups**. When you decide on the answer to a question, write the answer to the left of the answers on your test paper. Then when you finish a set of questions transfer your answers to the answer sheet all at once. This will save you time and decrease your chances of mis-shading.

- **Be disciplined**. Resist the temptation to spend a long time on any one question, and skip questions that immediately appear too difficult. Once you have completed other areas you can always return to earlier questions. You can also leave notes of your initial thoughts next to the question in order to remind yourself later when you return.

- **Ensure test completion**. It is very difficult to finish every question in the allotted time, so when there is 15 minutes left in the test pick up your pace. Ensure you are able to alert yourself to the fact that you have limited time left, and endeavour to shade in an answer for every question. There is no penalty for wrong answers.

In the following pages we will illustrate some of the above techniques by working through some of the early questions in Practice Test A. Make sure you have a copy of this test handy as you read the following pages.

For the questions 1-7 of the test, we will provide detailed guidance on how best to approach each question. For questions 8-11 we will provide some guidance, though not as detailed as in questions 1-7.

Once you have completed the 11 questions in this guide, try to complete the remainder of Practice Test A using similar techniques. Then try to complete Practice Tests B and C in their entirety.

Question 1

Absorbing. *In the question you should circle the words "CEO" and "FoodInc's requirements." Then when you speed-read the text you are able to circle the "requirements," which are contained in the last paragraph (sales growth of 10% or more in the last two periods).*

Solving. *Instead of labelling each of the last two nodes on the 4 scenarios and then calculating the percentage increase on each, first stop check for a shortcut. In order to have greater than 10% growth each year, each of the line segments will need to be greater than 10%. You can eliminate Scenario D without churning numbers; the slope of its last segment is not steep enough.*

Executing. *This calls for a calculation in a separate space, so you should write a number 1 in front of the calculation and solve in that space.*

Question 2

Absorbing. *Words to circle: "if done alone," "not help address" and "objectives of CEO." This helps you to note the CEO's objectives, which are in the last paragraph of text.*

Question 3

Absorbing. *Words to circle: "valid" and "Table 1."*

Solving. *Eliminate. For B, if revenue is $366.7 now then it must have been much less than $350 5 years ago. For C it is impossible to say for certain it never went less than 1.2%. Eliminate D because total sales must have grown (the only thing that lost money was other products but that was only 15 million total). You can select choice A and check it later if you have time. (The easiest way to check A is to start with 20 and subtract 5%, an approximation, each year. The other way is to start with 15.1 and add back 7.1% each year. Starting with 20 is clearly easier.)*

Question 4

Absorbing. *There are many key words in this question: "Kosher Franks' revenue," "year 4," "scenario C," and "Exhibit 1."*

Solving. *This is maths. Scenario C year 4 is approximately 120% of year 0 sales. Scan your text and exhibits for numbers. Approximate instead of adding exact numbers: 365 + 65 + 55 + 15 = 500. 120% of 500 = 600.*

Executing. *Clearly mark the space you use for your calculation on question 4.*

Absorbing. *Circle: "if true", "against", "price reduction" and "Los Angeles".*

Solving. *Eliminate A – if customers buy on taste then the price will not change anything. B - is not a good enough reason. D - this is about pickles, so unrelated. Only C is left.*

Question 6

Absorbing. *Circle: "average profit," "dollars per hot dog," and "before campaign." Note the units: dollars <u>per hot dog</u> **not** dollars <u>per package</u> (of 6 hot dogs).*

Solving. *Decide your approach before launching in on the maths. Try to come up with an equation. Profit = profit margin x price to buyer (in this case the grocery store) = 20% x $10 = $2. Now you have the profit per pack, but you need the profit <u>per hot dog</u>. This is $2/ 6.*

Question 7

Absorbing. *Circle most of the question: "payback," "first year," "percentage increase," "number hot dogs," "first year," and "pay back advertising."*

Solving. *Decide an equation. There are multiple ways to get this answer, but the method described in the answer key is easiest. If you take a different path in solving the maths, and you feel you are taking a long time (more than 3 minutes), then you probably missed the shortcut.*

Executing. *Remember to write down the units for the numbers you are scribbling.*

Instructions

Try to complete questions 1-7 again, but try to employ the techniques above. Give yourself 17 minutes to complete the first 7 questions.

Instructions

Answer questions 8-11 on your own using the techniques explained above. Give yourself 8 minutes for the 4 questions. When finished, compare how you approached these questions to the guidance on the following page.

Question 8

Absorbing. *Circle: "if true," "best support," "marketing manager." "Best" suggests that you will have to read all answer choices and then compare.*

Question 9

Absorbing. *Circle: "neither" and "two cities" in the question.*

Absorbing. *Since there is a large amount of text, circle key words in the text. Circle one word in each box that will allow you to scan quickly when answering the question. Potential words to circle (from left to right and then down): dominant brand, weak brand, increase loyalty, priced modest, high premium, price-sensitive, no switching, mixed promotions, strong marketing, and new customer.*

Question 10

Executing. *You have 4 minutes for the last two questions.*

Solving. *Eliminate*

Question 11

Absorbing. *Circle: "concerns" and "CEO." When you go to read the text, scan for the word "CEO" and focus on that sentence.*

Instructions

Try to answer as many of the remaining practice test questions as possible in 35 minutes using the techniques above.