

Perhaps no other section of the DAT seems as downright *odd* to pre-dental students beginning their DAT preparation as the Perceptual Ability Test, or PAT section. The questions in the PAT section are probably unlike any questions you've encountered in the past, yet the skills assessed by the PAT section are skills you use often, even if you don't realize it: visualizing and creating mental images of 2D and 3D objects. These are also skills used by dentists when performing a variety of tasks, from interpreting X-rays to preparing crowns and other restorations to visualizing parts of the teeth that lie below the gums. Read on for an overview of this DAT section and tips and for tackling PAT.

What to expect from DAT PAT

The PAT section is the second section of the DAT, following the Survey of Natural Sciences. You will have one hour to answer 90 questions. The PAT section contains 6 multiple-choice question types (15 of each):

#1–15: **Keyholes**

#16–30: **Top-Front-End (TFE)**

#31–45: **Angle Ranking**

#46–60: **Hole Punching**

#61–75: **Cube Counting**

#76–90: **Pattern Folding**

As with all sections of the DAT, you can skip around and start with whichever question type you prefer.

The PAT question types (in a nutshell)

Below is a summary of each of the PAT question types. *Check back for upcoming articles featuring in-depth explanations, plus plenty of tips, strategies, and resources specific to each question type!*

1. Keyholes

Based on images of 3D objects, you will choose which aperture (opening) would be a perfect fit for each object if that object were passed through it — much as a key fits perfectly into the lock it matches. This section will require you to visualize each 3D object and its appearance if it were turned or rotated.

2. Top-Front-End (TFE)

Every 3D object has a distinct appearance depending on whether it is viewed from the top, front, or end. Picture a cylindrical soup can: looking at the can from the top, you'll see a



circle. Viewing the can directly from the front or the side, though, you'll see a rectangular shape. In the TFE section, you will be provided with two of the three views for a series of 3D objects. Your goal is to determine what the third view would look like. For example, you might be given the top and front views of an object, and from this, you'd determine what the end view would look like.

3. Angle Ranking

Angle ranking questions assess your ability to discern small differences in angle size. You will be presented with sets of similar-looking angles — which may be acute, obtuse, or somewhere in between — and choose the answer that correctly ranks them from smallest to largest.

4. Hole Punching

A square piece of paper is folded several times vertically, horizontally, and diagonally. A hole is punched in the folded-up paper, then the paper is unfolded. What will the pattern of holes in the paper look like? The PAT section's hole punching (or paper folding) questions will require you to mentally "unfold" each piece of paper and determine the correct pattern of hole punches for different fold patterns.

5. Cube Counting

In the cube counting section, you will see different arrangements formed by stacks of cubes (if you ever created building block towers as a child, you already have a good idea of what the figures in this section look like). Then, imagine that the exterior of each structure is painted. You will determine how many cubes would have 0, 1, 2, 3, 4, 5, or 6 of their faces (sides) painted. Unlike other PAT question types, in cube counting, several questions correspond to a single figure.

6. Pattern Folding

You will see a flattened shape that, when folded up, creates a 3D object like a cube, a pyramid, or an unusual structure with many parts. Your objective is to determine which 3D object would be produced by the flattened shape depicted if it were folded up. Many pattern folding questions have unique shading and patterns, so you'll have to consider how these patterned parts would look relative to each other in the 3D object.

Getting started with PAT

When it comes to PAT, where do you begin? The keys to PAT are *familiarity* and *practice*. The questions in this section might confuse you initially, especially as you are learning the rules for each question type. You might struggle with timing. Certain question types might come easily to you, while others might prove more challenging. No matter what, don't allow yourself to become discouraged, because PAT **will** feel more doable (maybe even enjoyable? — never say never) in time. Here is one way to get started with PAT and begin incorporating it into your DAT studying.

1. Familiarize yourself with the six question types. By reading this article, you've done that! To further familiarize yourself and assess your strengths and weaknesses, take a



diagnostic test. Don't focus at all on the number of questions missed, and don't worry if you run out of time — timing is a skill that can develop over time once you have the strategies down. Consider the diagnostic test an opportunity to see what the PAT section is like and to figure out how to allot your study time.

2. Decide on a plan of attack for studying PAT. There are multiple approaches you can take, depending on your preferences and your outcome on the diagnostic test. Some people decide to focus on one or two question types at a time. For example, you might spend the first chunk of your DAT study schedule practicing angle ranking and hole punching (both of which rely much less on 3D spatial reasoning than other sections). You might next drill down on cube counting and keyholes. After gaining confidence with these question types, you could progress to the remaining question types, pattern folding and TFE.

Alternatively, rather than focusing on certain question types at a time, you could set aside time each day to practice multiple question types for 10–15 minutes each.

3. Practice and develop your strategies. This is the most crucial part in preparing for PAT. Practice by using the **PAT generators** on Crack the DAT's [website](#), which will offer you an endless stream of practice problems. Download the app on your phone and practice when you have a bit of time. When you get a question incorrect, take time to **learn from your mistake** and determine where you went wrong, and read the explanation, if provided. **Learn different strategies** for each question type — you might find a strategy or technique that works well for you and completely transforms your approach. With practice and continual exposure to the question types, you will grow increasingly confident in your PAT skills. As test day gets closer, you can begin practicing with timed, full-length PAT tests to simulate the experience of the real DAT and hone in on any additional areas of improvement.

Good luck with your preparation!

