Cut Quality

The Diamond Course

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• Proportions
• Proportion Variations
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THE CINDERELLA C

In the last lesson you learned about cut shape and style, the aspect of diamond cut with which customers are most familiar. In this lesson you’ll examine the area that customers are least familiar with – the three factors that determine cut quality. Those factors are:

• **Proportions** – The relative sizes and angles of the diamond’s parts and facets.
• **Symmetry** – The precision of the execution of the cut design.
• **Polish** – The smoothness and luster of the diamond’s surfaces.

Symmetry and polish are often grouped together under the category of **finish**. All three cut quality factors are included in what diamond professionals call **make**.

For many years, cut quality was the neglected C. Many jewelry sales associates ignored it. They focused only on clarity, color, and carat weight. Others simply assured customers that whatever diamond they were considering was a “fine cut.”

Things are different today. Like Cinderella, cut quality has taken a place in the spotlight. It’s featured on websites and in consumer literature dealing with diamond value. Many fine jewelry retailers use cut quality to distinguish their diamonds from others.

Photo courtesy The Hearts On Fire Company.
those of mass-marketers. Informed customers are concerned about cut quality, and that makes it a vital part of your presentations.

As with other Cs, a solid explanation of cut quality gives customers information they need to make educated purchase decisions. It differentiates your diamond from other diamonds of similar color and clarity. It creates appreciation for the skill and labor that produce a diamond’s beauty. It also builds trust in your store and in you. Just as important, explaining cut quality can help customers understand that skimping on this C is one way your competitors can offer diamonds at “unbelievable bargain” prices.

Lesson Objectives

When you have successfully completed this lesson you will be able to:

• Define the components of cut quality.
• Explain how cut quality affects beauty and value.
• Answer customers’ questions about cut features.
• Describe how professionals evaluate cut quality.
• Present cut quality to your customers.
**CUT QUALITY AND BEAUTY**

A diamond’s overall appeal involves emotions and psychology, but its sensory beauty comes mainly from its interplay with light. As you learned in Lesson 5, that interplay produces brilliance, dispersion, and scintillation. In your sales presentations, you can emphasize how each cut quality factor contributes to these essential ingredients of beauty.

- **Proportions** shape the dynamics between the diamond and light. You might say they form the engine that powers a diamond’s optical performance.

- **Symmetry** creates a precise balance of optical elements. You could call it the fine-tuning that enables the diamond to perform from every view and in every light.

- **Polish** reveals each element’s full potential. It makes the diamond’s brilliance sharp, the fire distinctive, the sparkle crisp. You can say that polish helps the diamond achieve its finest performance.

When proportions, symmetry, and polish are combined effectively, and cut quality is at the highest level, the result is an optical performance that dazzles the eye and captures the imagination. Producing superior performance takes skilled effort, however. It also requires sacrificing much of the rough diamond crystal’s precious weight. Compromises that reduce labor or save weight can affect the diamond’s beauty and even its durability. Explaining these things is the key to presenting cut quality.
PROPORTIONS

A diamond’s dimensions (width and depth) are identifying features. Together with carat weight and clarity characteristics, accurate measurements of diameter and depth can help identify an individual diamond. No two diamonds are exactly alike in their unique combination of all of these features.

Dimensions don’t provide direct information about cut quality, however. It’s the relationships between dimensions that matter. These are the diamond’s proportions.

Round Brilliants

For round brilliant cuts, key proportions include:

- **Total Depth**: The diamond’s depth in relation to its diameter. This is stated as a percentage. A total depth of 60% means the distance from the table to the culet equals 60% of the girdle diameter. Most round brilliants today have a total depth between 53% and 63%.

- **Crown Angle**: The angle formed by the bezel facets and the girdle plane. Like the angles of all geometric shapes, this is measured in degrees. On most round brilliants the crown angle is between 30° and 35°.

- **Pavilion Depth / Angle**: The pavilion depth is the distances from girdle plane to culet. It’s expressed as a percentage of the girdle diameter. This proportion can also be stated in terms of the pavilion angle, which is formed by the girdle plane and pavilion main facets. Pavilion depth has a relatively narrow range. It’s usually between 41% and 44%.

- **Table Size**: The diameter of the table compared to the diameter of the girdle. It’s also expressed as a percentage. The typical range for table size is 55% to 65%.
There are two features that aren’t percentages or angles, but are still considered elements of proportion. They are girdle thickness and culet size.

- **Girdle Thickness**: The width of the girdle surface judged between upper and lower girdle facets. This is assessed with 10x magnification and the unaided eye. It’s described as:

  - **Extremely Thin** – Sharp edge under 10x; not visible to the unaided eye. (This is also called a knife-edge girdle.)
  - **Very Thin** – Very thin line under 10x; barely visible to the unaided eye.
  - **Thin** – Thin line under 10x; difficult to see with the unaided eye.
  - **Medium** – Distinct line under 10x; thin line to the unaided eye.
  - **Slightly Thick** – Obvious under 10x; distinct to the unaided eye.
  - **Thick** – Very obvious under 10x; obvious to the unaided eye.
  - **Very Thick** – Distracting under 10x; very obvious to the unaided eye.
  - **Extremely Thick** – Very distracting under 10x; distracting to the unaided eye.

Girdle thickness affects more than just the look of a cut diamond. A diamond with a thin girdle is susceptible to chipping. A medium girdle, as shown on the right, is better. A thicker girdle may be difficult to set.

Girdle thickness is judged between upper and lower girdle facets.
• **Culet Size:** *The culet’s visibility judged face-up (looking at the culet through the table).* This is also assessed with 10x magnification and the unaided eye. It’s described as:

<table>
<thead>
<tr>
<th>Culet Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None (or “pointed”)</td>
<td>Sharp point. (No polished facet that can be seen. If the culet point is abraded, it may look like a small white dot.)</td>
</tr>
<tr>
<td>Very Small</td>
<td>Barely visible under 10x.</td>
</tr>
<tr>
<td>Small</td>
<td>Difficult to see under 10x.</td>
</tr>
<tr>
<td>Medium</td>
<td>Octagonal facet outline visible under 10x; not visible to the unaided eye.</td>
</tr>
<tr>
<td>Slightly Large</td>
<td>Easy to see under 10x; barely visible to the unaided eye.</td>
</tr>
<tr>
<td>Large</td>
<td>Visible to the unaided eye.</td>
</tr>
<tr>
<td>Very Large</td>
<td>Obvious to the unaided eye. (Looks like a black spot under the table or a hole in the bottom of the diamond.)</td>
</tr>
<tr>
<td>Extremely Large</td>
<td>Octagonal facet outline clearly visible to the unaided eye.</td>
</tr>
</tbody>
</table>

You shouldn’t recite a long list of proportions, numbers, or technical definitions in a sales presentation. That’s far too much detail for the average diamond buyer. Customers may have heard or read proportion terms, though. They appear on diamond quality reports and are often referenced in internet information sources, so you need to understand what they mean, and be ready to explain them should questions arise.
Fancy Shapes

Most of the proportion measurements for fancy shapes are the same as for round brilliants. Typical ranges for total depth, table size, crown angle, and pavilion depth are wider by several percentage points or degrees, however. There are also a couple of more significant differences:

- Most fancy shapes have length and width. Unlike round brilliants, fancy shape proportions comparisons are based on width instead of average diameter. For example, table size is the width of the table compared to the width of the diamond. This also true for total depth and pavilion depth. A fancy shape’s crown angle is measured at its mid-section as well.

- The attractiveness of the shape itself is critical. This partly depends on the relationship between length and width, which is often expressed as a ratio. For example, a dealer might say that a marquise has a length-to-width ratio of two to one. (That would usually be written 2:1). It means the diamond is twice as long as it is wide. Even more important, however, is the girdle outline’s shape appeal. This includes features like attractively beveled corners on emerald cuts, and pleasingly rounded curves on ovals, pears, hearts, and marquises.
LENGTH-TO-WIDTH RATIOS

The length-to-width ratios seen in today’s fancy shapes reflect established consumer preferences. In other words, most customers find certain length-to-width ratios most attractive, and standard sizes (dimensions) for fancy shapes are based on these preferences. That’s why ovals, for example, often have measurements such as 5x3, 6x4, 7x5, and 9x7 millimeters.

Preferred length-to-width ratios for the classic fancy shapes are:

- Emerald cut*  1\(\frac{1}{2}\):1 to 1\(\frac{3}{4}\):1
- Oval  1\(\frac{1}{3}\):1 to 1\(\frac{2}{3}\):1
- Pear  1\(\frac{1}{2}\):1 to 1\(\frac{3}{4}\):1
- Marquise  1\(\frac{3}{4}\):1 to 2\(\frac{1}{4}\):1
- Heart  1:1
- Princess  1:1

* For square emerald cut, 1:1.

If you want to determine a fancy shape’s length-to-width ratio, divide the length by the width and use the result as the first number in the ratio. The second number is always 1. For example, if an emerald cut measures 9.00 mm long and 6.00 mm wide, 9.00/6.00 = 1.5. So the length-to-width ratio is 1\(\frac{1}{2}\):1. (Remember that this kind of detail is for your information and usually isn’t needed in sales presentations.)

PROPORTION VARIATIONS

A diamond’s proportions largely determine its brilliance, dispersion, and scintillation. In fact, truly effective proportions create a marvel of optical dynamics!

When a well-cut diamond is set in jewelry, light strikes its crown from many different angles. Some of the light reflects from the surface. The rest enters the diamond and reflects internally from the pavilion. A high percentage then exits through the crown, traveling in directions where it’s likely to be seen and admired. Relatively little light is lost or wasted.
If a diamond isn’t properly proportioned, more light escapes (or "leaks out") through the pavilion. Light may also leave the crown traveling in directions away from observers. In addition, poor proportions can hide excess weight or reduce the diamond’s ability to withstand wear.

“Why, then,” a customer might ask, “aren’t all diamonds cut to the best possible proportions?” The answer essentially boils down to economics.

Variations in Round Brilliants

Out of the many thousands of possible combinations of proportions, only a small number produce the best optical performance in round brilliants. These are often referred to as ideal proportions.

Cutting a diamond to ideal proportions has a cost, however. It may require giving up more than half of the crystal’s original weight. This means that the cutter – and everyone who follows in the market chain – must sell the diamond at a higher per-carat price, compared to diamonds that are cut to less strict proportions.

Cutters can vary proportions in order to obtain higher weight yield. This enables them to offer diamonds at lower per-carat prices. The diamonds seem like bargains to consumers, and they’re still profitable for the cutters.

Minor proportion variations from the ideal save a little extra weight and have little effect on the diamond’s appearance. There might be slightly less brilliance or dispersion, but only trained professionals would notice the difference. Diamonds with such minor variations could be described as having "very good" or even "fine" proportions.
More significant variations from the ideal save more weight. They also produce more noticeable side effects. With what might be called “fair” proportions, weight yield can be up to 20% higher than for Ideal proportions. The diamond will display less brilliance, dispersion, or scintillation, however, and depending on the nature of the variations, the diamond might look somewhat watery or dark.

Diamonds cut with major proportion variations save substantially more weight, compared to those with ideal proportions. However, the variations create serious consequences for beauty. They may also hide excess weight or hurt the diamond’s durability. Many variations are possible, but here are two examples that show what can happen, and that you might explain to customers:

- **Deep Diamond** – The combination of a thick girdle and deep pavilion can produce a diamond that looks small for its weight. For example, a deep diamond that weighs 1 carat might have the same diameter as a well made diamond that weighs about 3/4 carat. When viewed face-up, both diamonds would appear to be the same size, so the larger diamond’s extra weight is hidden. The buyer has to pay for that weight, but it makes no contribution to the diamond’s appearance. In addition, an extremely thick girdle can make a diamond difficult to set, and a very deep pavilion can make the diamond a **nailhead**, with a center that’s dark and dead.

- **Shallow (or Spread) Diamond** – A large table and thin girdle combined with a shallow crown and pavilion make a diamond appear large for its weight. A shallow cut diamond that weighs 1 carat, for example, may have the same diameter (and therefore the same size appearance) as a well cut diamond that weighs 1.2 carats. While that might seem like a plus, there are negative trade-offs. A large table reduces dispersion and scintillation. A shallow pavilion can create a **fisheye** that looks like a white or gray ring inside the table. (It’s actually a reflection of the girdle). A shallow crown together with an extremely thin (or “knife-edge”) girdle greatly increases the risk of chipping.
Variations in Fancy Shapes

Although they’re currently being researched, ideal proportions have not been established for most fancy shapes. Many experts believe, however, that proportions close to those for the round brilliant (in the profile view of the width) produce the best optical results.

Many variations in fancy shapes are similar to those seen in round brilliants. They’re made for the same reasons and have comparable effects.

Some proportion variations are unique to fancy shapes:

- **Bow-Tie Effect** – In a fancy shape brilliant (oval, pear, heart, or marquises), a dark reflection pattern at the diamond’s midsection can be created by certain combinations of crown and pavilion angles. This is called the bow-tie effect. Many fancy shape diamonds show it to some degree. A bow-tie that’s large and dark, however, significantly reduces brilliance. A bow-tie can also indicate poor symmetry when it appears uneven or unbalanced left to right.

- **Bulge Factor** – On emerald cuts, the steps of pavilion facets form a curved profile called the bulge factor. That curve is sometimes exaggerated, though. The resulting pavilion bulge adds weight, but reduces brilliance. It can also make the diamond difficult to set securely.

- **Extreme Length-to-Width** – Increasing or decreasing the length-to-width ratio beyond a certain point makes the shape look either thin or bulky. Diamonds with unusual ratios may not fit standard mountings. Those that are extremely thin may also be relatively fragile.

- **Outline Variations** – Distorting the girdle outline can make a shape awkward and unappealing – flat-topped, blocky, squashed, clumsy or blunt. If outline variations are significant, the diamond may require a custom-made mounting.
SYMMETRY

The main concern with symmetry is how precisely opposite sides of the diamond match. This is judged from different views – crown, pavilion, and profile. Another consideration is the precision of facet shape and placement.

For diamond cut symmetry, the ideal is a mirror-like balance from one side of the diamond to its opposite, with each facet perfectly shaped and positioned. This creates an even display of brilliance, dispersion, and scintillation from every viewing angle after the diamond is mounted. It also ensures that the diamond will perform well in a wide variety of lighting conditions. Achieving ideal symmetry requires great attention to detail, however, adding to the time and labor costs of cutting.

When a diamond has the rare combination of ideal proportions and ideal symmetry, it’s often referred to as a super-ideal cut. (To professionals the term “super-ideal” means more than just ideal proportions. Symmetry and polish must be ideal, too, or at least close to it.)

When less care is taken with this cut quality factor, round brilliants can show a long list of symmetry features:

- Table or culet off center
- Table not a perfect octagon
- Table and girdle not parallel
- Girdle outline out-of-round
- Girdle undulating or “wavy"
- Crown and pavilion facets misaligned
- Facets misshapen
- Facet points not precise
- Extra facets
- Naturals

When symmetry is excellent, the reflective hearts and arrows patterns manifest it.

Photo courtesy The Hearts On Fire Company.
In Lesson 3 you learned that two of these symmetry features - extra facets and naturals - can be considered clarity characteristics. That consideration is usually only in diamonds of the highest grades, however, Flawless, Internally Flawless, and perhaps VVS. In most diamonds, extra facets and naturals are simply considered cut quality features.

Fancy shapes aren’t as completely symmetrical as round brilliants. The asymmetry that’s built in to their design creates a sense of visual dynamics that is part of their appeal. All fancy shapes have certain directions of symmetrical balance, however. Precise faceting is also as important for fancy shapes as for rounds.

In addition to symmetry irregularities like those in round brilliants, fancy shapes can have:

- Sides not parallel on an emerald cut or princess
- Uneven corners on an emerald cut
- Uneven pavilion bulge on an emerald cut
- Culet too high or too low on a pear or heart
- Uneven curves on an oval, pear, heart, or marquise
- Keel off center on an oval, pear, heart, or marquise
  (The keel is the central ridge formed by some pavilion facet arrangements.)

Most diamonds have minor symmetry irregularities that have little or no effect on appearance. Major symmetry problems – such as an obviously out-of-round girdle – hurt a diamond’s optical performance and visual appeal. As a result, they diminish value, too. Like major proportion variations, they represent weight and time saved at the expense of beauty.
POLISH

Because of their superior hardness, diamonds can take and keep a polish quality that far surpasses all other gems. For a diamond to display its very best brilliance, dispersion, and scintillation, the highest degree of that superlative polish is essential. The very rare union of ideal proportions, ideal symmetry, and perfect polish creates a true Ideal Cut.

Like symmetry, polish quality and its effect on value reflect the skill, care, and time taken in the cutting process. Almost all diamonds have minor polish blemishes. Poor polish, however, can make a diamond look dull and fuzzy regardless of the quality of its proportions and symmetry.

Polish blemishes include abrasions, nicks, pits, polish lines, polish marks, and scratches. Any of these may be considered as clarity characteristics in high-grade diamonds. In most others, they’re considered cut quality features.

A rough girdle is also a polish blemish. During the cutting process, diamonds are often shaped by rubbing them against other diamonds in a precisely controlled way. When done correctly, the result is a girdle surface that’s smooth and waxy looking. The girdle may later be polished or faceted. (You’ll learn more about the diamond cutting process in Lesson 12.) If the process is hurried, the girdle may look granular – like the surface of a sugar cube. That’s a rough girdle. Over time it may trap oil and dirt that make the diamond look dark and gray.
EVALUATING CUT QUALITY

You can tell customers that cut quality is evaluated just as precisely as other value factors. For specific details to help you reinforce this point, ask your manager or qualified coworker to demonstrate your firm’s procedures.

Methods and Instruments

To analyze proportions, many diamond graders use a combination of techniques. They visually estimate some proportions. They calculate others from careful measurements. Symmetry and polish are judged much like clarity. Graders use 10x magnification to identify and assess features, and then decide how visible they are or how they affect the diamond’s appearance.

There are also instruments that can evaluate some aspects of cut. These are becoming more sophisticated and more affordable all the time. As a result, cut grading instruments are now standard equipment in many cutting factories and trade laboratories. A growing number of wholesalers and retailers use them, too.

Cut grading instruments range from simple to high-tech. They include:

- Special filtered viewing devices that reveal the “hearts and arrows” reflection pattern in diamonds with ideal proportions and symmetry.
- Microscope eyepieces that are engraved with templates for measuring proportions.
- Computerized laser systems that measure and print out key proportions in just a few seconds.
- Advanced technology that combines digital imaging and computer analysis to rate a diamond’s optical performance.
In addition to grading, most of these instruments can be used for sales presentations. They make it easy – even entertaining – to show the quality of a diamond’s proportions and symmetry. Many customers find them interesting. Those who are technically oriented may be very impressed.

Learn to use cut grading instruments that are available in your store. Remember, however, that technology can confuse as well as educate. No instrument can yet provide a complete picture of proportions, symmetry, and polish. Even in this age of amazing machines, an expert must still make the final call on a diamond’s cut quality.

HEARTS AND ARROWS

In the 1980s diamond dealers began using a newly invented optical device to identify diamonds of high cut quality. The device simplified the complicated reflections displayed by a round brilliant cut diamond under normal lighting conditions, and revealed the distinctive pattern that has come to be known as hearts and arrows. In the 1990s hearts and arrows defined a generation of round brilliant cuts that include some of the best-known diamond brands.

The hearts and arrows pattern actually has two separate components. The hearts can be seen when the diamond is viewed face-down, while the arrows can be seen face-up. Both components are produced by the round brilliant cut’s facet design. They appear only if proportions and symmetry are relatively good. Not all well-cut diamonds – or even Ideal Cut diamonds – show the patterns, however. In diamonds of lower cut quality, the hearts become distorted, and the arrows disintegrate into a jumbled mosaic.

Besides being buyer’s aids, the special devices (or “scopes”) that show the hearts and arrows pattern are now used as quality control instruments by diamond cutters. Many wholesale dealers and retailers use them as selling tools. In retail settings, they allow customers to see the precision of a diamond’s cut. The hearts also have strong emotional appeal for many people.
Cut Grades

Cut has been counted as one of the 4Cs of diamond value for a very long time. For just as long, cut quality has been recognized as the top factor in beauty for most diamonds. But cut grading is a subject that’s still evolving.

This is true partly because cut is the most complicated of the 4Cs. It’s also due to the fact that researchers and professionals have increasingly powerful tools for analyzing cut.

To understand or explain the situation, you can start by comparing cut to the other Cs. Carat weight, clarity, and color are all simple and easy to understand. Greater carat weight, for example, normally equates with greater rarity and higher value. Except for electronic scales, gemsscopes, and special lighting equipment, the methods for measuring or judging the other Cs haven’t changed much in the past hundred years.

In contrast, cut quality reflects human decisions rather than natural rarity. It can affect several critical features – the diamond’s beauty and durability, as well as the relationship between weight and apparent size. (That relationship is often referred to as weight ratio.)

Until the 1990s, when high-power computers and advanced optical instruments became available, it was impossible to assess or compare the effects of different proportion combinations. But since then, things have changed dramatically.

Today, computer modeling can trace thousands of light rays through a virtual diamond, to show exactly where those rays come from, where they go, and what happens to them. There’s also technology that combines digital imaging with computer analysis, which can measure and depict the optical performances of actual diamonds.
On the basis of all these changes, a number of organizations have created diamond cut grading systems. So far, the systems have been used mostly for laboratory grading reports, but this may change as time goes on.

The American Gem Society (AGS) and Gemological Institute of America (GIA) developed two of the most advanced and comprehensive cut grading systems. Both of these were first published in 2006. They replaced or completed systems the organizations had previously used.

The **AGS Diamond Cut Grade Scale** consists of eleven grades – **0 to 10**, with 0 being best. The GIA cut grades are **Excellent**, **Very Good**, **Good**, **Fair**, and **Poor**. Both systems cover essentially the same things: the effects of proportions on optical performance, durability, and weight ratio, plus the significance of symmetry and polish features. Besides using different grade scales, the two systems also use differing terms, approaches, and methods.

The AGS system evaluates eleven separate components which are grouped into three main categories – **Light Performance**, **Proportion Factors**, and **Finish**. Deductions are applied for the various components when warranted. Then the final cut grade is determined by a simple arithmetic formula.

The GIA system considers seven components under two headings – **Face-Up Appearance** and **Other Contributing Factors**. Each component is graded individually, and the lowest result usually determines the overall cut grade.

So far, diamond cut grading systems are used mainly on laboratory reports, but this may change as time goes on.

Sample report courtesy GemEx Systems.
Although they might sound minor, the differences between the two systems are such that grades can’t be translated from one scale to the other (as they can for clarity and color). This is true for other cut grading systems as well.

You can use the system your company has adopted or those that appear on laboratory grading reports you present – and you should certainly learn to do so. At the same time, you need to be aware that other systems do exist. You should be ready to help customers understand why it’s not possible to make direct comparisons. Going forward, you also should take every opportunity to learn about diamond cut grading systems – the ones you use regularly, and others too.

The GIA system considers seven components under two headings – Face-Up Appearance and Other Contributing Factors.
THE IDEAL CUT

Ever since people learned how to cut diamonds, they’ve been trying to define perfection – or the ideal – in cutting. For centuries, the definitions mainly focused on the spiritual symbolism or magical powers of the numbers and geometric forms that could be found in a cut. The first scientific analysis of diamond cut was published in 1919. It appeared in a small book titled *Diamond Design*. The author was Marcel Tolkowsky.

Tolkowsky was a mathematician, and he calculated a set of proportions that he felt would produce the best optical performance in a round brilliant cut diamond. He based his calculations on the laws of physics, but he didn’t rely entirely on personal opinion and abstract numbers. His family had been connected with the diamond trade for generations, and he had lots of opportunities to study real-life examples. So, he was able to verify that his proportions were very close to those being used by the most respected cutters of the time.
From the very first, Tolkowsky’s analysis was widely accepted among diamond experts, and it ultimately became the basis for many of today’s ideal cuts. In the 1950s, the American Gem Society adopted Tolkowsky’s model as its standard for proportion grading. The AGS made a few adjustments during the years that followed. They also defined standards for symmetry and polish in order to create a complete system. (Tolkowsky only dealt with proportions.) In 2006, the AGS introduced a new system that places primary emphasis on light performance. But Tolkowsky’s model still rates among the best.

In Lesson 5 you learned that many of today’s branded diamond cuts can also be classified as ideal cuts. Many of these meet the standards of the AGS Ideal Cut. Others have added specifications, like a clear display of the hearts and arrows pattern.

If your store offers ideal cuts, learn exactly what sets them apart, and develop the ability to explain this to customers. That includes drawing a clear picture of all the different features of a true ideal cut, as well as the technical knowledge and skill that it represents.
PRESENTING CUT QUALITY

For many jewelry sales professionals, cut quality is a difficult C to present. However, if you remember your ultimate objective – helping customers choose among the diamonds you offer – your task becomes relatively simple.

As with other Cs, you need to fit your approach to the diamonds you present and the customers you serve. For instance, if you’re showing an ideal cut, you can emphasize the strict standards by which it’s judged. You can also say that experts regard ideal cuts as the pinnacle of human art and natural beauty in diamonds. Their higher value is a direct result of greater weight sacrifice and skilled labor.

When you’re showing cuts that aren’t ideal, don’t misrepresent them, but definitely do describe them in positive terms. You can say that a diamond with good or fair make offers a balance of beauty and value.

(If you don’t have specific information on cut quality – say, from a lab report – work closely with store management to ensure that your statements and descriptions are factually accurate. Don’t risk misrepresenting your merchandise.)

Once you’ve explained the other Cs, you might compare cut variations to microscopic clarity characteristics or faint tints of color. Stress that diamond cutting and the standards for evaluating cut quality are very precise. Proportions normally vary within small percentages that translate into fractions of a millimeter. Most symmetry and polish features are visible only with the aid of magnification or special instruments.
In whatever ways are available and appropriate, let customers see the difference fine cutting makes.

Since comparison-shopping is common these days, be sure to make customers aware that cut quality is often the hidden factor in "discount" diamonds. Two diamonds that are equal in carat weight, clarity, and color can differ substantially in appearance and value just because of differences in cut quality.

A simple demonstration can help you educate customers about cut quality, and alert them to compromises that affect beauty and value. Instruments work well for this purpose. So do side-by-side comparisons. In whatever ways are available to you and appropriate for the situation, let customers see the difference that fine cutting makes. If you do that – more eloquently than words ever could – the quality of cut will speak for itself.

FTC GUIDE 23.15 Misuse of the term “properly cut,” etc.

It is unfair or deceptive to use the terms “properly cut,” “proper cut,” “modern cut,” or any representation of similar meaning to describe any diamond that is lopsided, or is so thick or so thin in depth as to detract materially from the brilliance of the stone.

Note to 23.15: Stones that are commonly called “fisheye” or “old mine” should not be described as “properly cut,” “modern cut,” etc.
RECAP OF KEY POINTS

• The three factors that determine a diamond’s cut quality are proportions, symmetry, and polish. Proportions are the relative sizes and angles of the diamond’s parts and facets. Symmetry is the precision of the execution of the cut design. Polish is the smoothness and luster of the diamond’s surfaces.

• Each cut quality factor makes a contribution to the diamond’s beauty. Compromising any factor affects quality.

• Key proportions for round brilliants include total depth, table size, crown angle, pavilion depth, and culet size. Added considerations for fancy shapes are length-to-width ratio and shape appeal.

• Out of all the possible combinations of proportions, only a small number produce the best optical performance in round brilliants. These are known as ideal proportions. Variations from ideal proportions increase weight yield, but they can have negative effects on appearance and durability.

• Ideal symmetry includes a mirror-like balance between opposite sides of a diamond, and also exact faceting. This creates an even display of optical effects, but it also increases cutting costs. Minor symmetry irregularities reflect less attention to detail. Major problems represent weight saved at the expense of beauty.

• Perfect polish is essential for a diamond to display optimum brilliance, dispersion, and scintillation. Most diamonds have minor polish blemishes. Poor polish reduces the beauty of any diamond.

• The traditional approach to cut evaluation involves sight estimation, measurements and calculations, and methods similar to clarity grading. Instruments can now assess some aspects of cut quality.

• Cut grading is an evolving subject. Two of the most advanced and comprehensive diamond cut grading systems were developed by the AGS and GIA.

• In presenting cut, your objective is to help customers choose among the diamonds you offer. To do this, adapt your presentation to the diamonds you’re showing and the customer you’re serving.
LESSON 6 FOLLOW-UP CHECKLIST

___ Develop a definition for each cut quality factor in your own words. Then practice describing how each factor contributes to a diamond’s beauty.

___ With a coworker, role-play answering customer questions about the meaning of proportion terms. If you use diamond quality reports in presentations, practice with one.

___ Work out and rehearse two explanations of proportion variations – one that’s just two or three sentences and another that’s more detailed. (Be prepared for differing levels of customer interest.)

___ Role-play explaining symmetry and polish quality with a coworker.

___ Ask your manager or a qualified coworker (perhaps your store’s diamond buyer or staff gemologist) to show you how cut is evaluated.

___ Learn to operate any cut grading instruments that are available in your showroom. Then role-play using them to demonstrate cut quality.

___ Ask your manager about the cut grading system your firm uses, and also those that are used on any laboratory reports you might show customers. Learn the grades and practice explaining them.

___ With your manager and coworkers, discuss accurate and positive ways to present the cut quality of the diamonds your store offers.
Lesson 6 Self-Test

This lesson also includes a Self-Test that’s designed to help you gauge your comprehension of the lesson material. The test is an important part of the learning process, so be sure to complete it.

When you’re ready to take the test, go to the Course Materials page (the one that lists all the lessons and click on "Take Self-Test." Make certain you select the test for this lesson.

All questions in the test are based on Lesson 6. More than one answer for a question might seem correct, but you should select the one best answer based on the lesson discussion.

As you take the test, you may refer to the lesson. To do this, you’ll need to have the lesson loaded in a separate window of your browser.

If you feel certain about a question, try answering it without looking at the lesson. But if you’re not sure, check the lesson before answering.

After you answer a question, you’ll receive immediate results and feedback. You'll find out whether you answered correctly, what the correct answer was (in case you missed it), and also the page number in the lesson where the information can be found. Take time to review any material you're not completely clear on.

At the end of the test, you’ll receive your overall results. Then you’ll be able to continue to the next step in your coursework.

If you have questions or need help, please contact us. You can use this website – just click on Help. You can also email studenthelp@diamondcouncil.org or phone 615-385-5301 / toll free 877-283-5669.