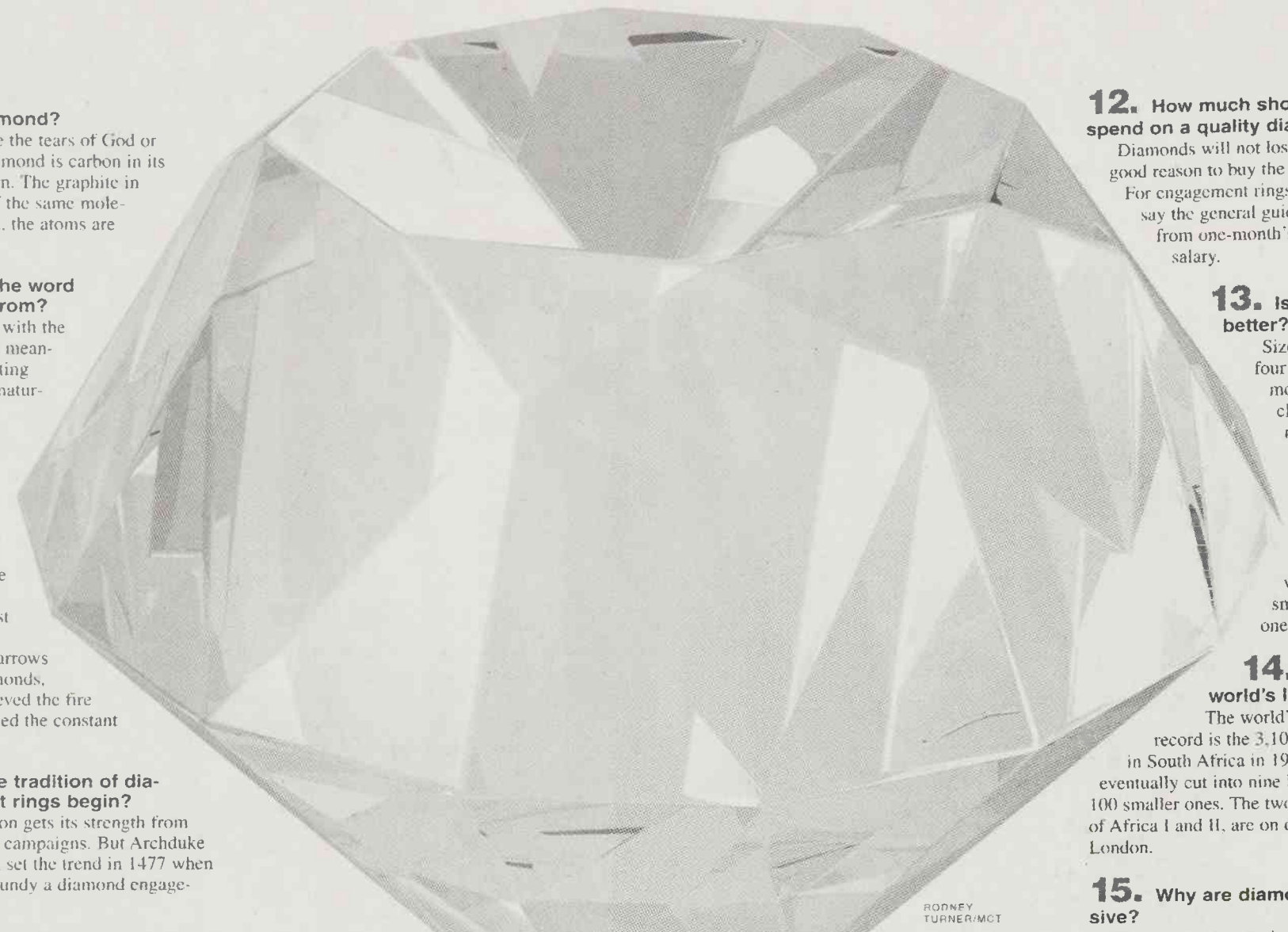


RODNEY TURNER/MCT

TOUGH, YET PRECIOUS

Facts, tips and trivia about diamonds

1. What is a diamond?

Once believed to be the tears of God or splinters of stars, a diamond is carbon in its most concentrated form. The graphite in your pencil is made of the same molecules as your diamond, the atoms are just more compact.

2. Where does the word "diamond" come from?

"Diamond" started with the Greek word "adamas" meaning unconquerable; fitting since it is the hardest natural substance on Earth.

3. Why are diamonds the ultimate symbol of love?

Diamonds have long been associated with romance and love because they are rare, precious and — almost — indestructible. Legends say Cupid's arrows were tipped with diamonds, while the Greeks believed the fire in the diamond reflected the constant flame of love.

4. Where did the tradition of diamond engagement rings begin?

The modern tradition gets its strength from successful advertising campaigns. But Archduke Maximilian of Austria set the trend in 1477 when he gave Mary of Burgundy a diamond engagement ring.

5. What else are diamonds traditionally used to celebrate?

Diamonds are April's birthstone. The 10th, 60th and 75th wedding anniversaries are also associated with diamonds.

6. Where do diamonds come from?

Natural diamonds are found in kimberlites, or diamond pipes, which were formed by powerful magma eruptions millions of years ago. An estimated 65 percent of the world's diamonds are found in Africa, but other big deposits are found in Australia and Russia.

7. What are the "four C's"?

Knowing the four C's is essential for choosing a quality diamond, not just one that looks good under the jewelry store's lights.

■ **Color:** Most diamonds appear colorless, but almost all contain varying degrees of yellow or brown, sometimes called champagne diamonds. "Fancies" are colored diamonds, which can be found in pink, red, blue, green, amber or black.

■ **Cut:** The cut allows a diamond to make the best use of light. When a diamond is cut to good proportions, light is reflected from one facet to another and then dispersed through the top of the stone. Cut too deep or too shallow and the stone can appear duller. The most common shape is the round brilliant, but you can choose from a marquise, pear, emerald, cushion, oval, baguette, princess, heart or the new flower cuts.

■ **Carat Weight:** Like all precious stones, the weight of a diamond is expressed in carats; a tradition since jewelers weighed gemstones in relation to the seeds of the carob tree. Now standardized, one carat is equal to 0.2 grams. One carat is divided into 100 "points," so that a diamond of 25 points is described as 0.25 carats. Less than 5 percent of all the diamonds made into jewelry are larger than one carat.

■ **Clarity:** Almost all diamonds contain tiny traces of non-diamond crystals, but most are invisible to the naked eye. These hiccups in your diamonds perfection are called inclusions. The fewer inclusions, the more rare and desirable the stone.

8. How do I pick a jeweler to buy my diamonds from?

A good jeweler should be happy to explain the four C's to you, the difference between various qualities of diamonds and how these differences affect the price. To find a jeweler you can trust, ask for recommendations from family and friends. Or, ask the Jewelers of America (**www.jewelers.org**) or the American Gem Society (**www.americangemsociety.org**) for a recommendation.

9. What are conflict diamonds?

Also called blood diamonds, conflict diamonds are mined in war-torn countries to fund rebel causes. Amnesty International estimates that the smuggling of conflict diamonds is responsible for 3.7 million deaths in Africa.

10. How do I know my diamond isn't a conflict diamond?

The Kimberley Process is an international initiative to regulate trade in rough diamonds. Kimberley members must meet extensive requirements to call their diamonds "conflict-free." To avoid buying a conflict diamond, only buy diamonds that have guarantees. Reputable jewelers, if abiding by the Kimberley Process, will only buy from suppliers who provide guarantees, which should be recorded in their invoices. The store also should have a clear and firm policy on conflict diamonds.

11. How much was the most expensive diamond sold at auction?

Sheikh Fitaihi of Saudi Arabia, an international collector, bought "The Star of the Season" diamond for $16.5 million at a Sotheby's auction in 1995.

12. How much should I expect to spend on a quality diamond?

Diamonds will not lose value over time — a good reason to buy the best you can afford. For engagement rings in particular, jewelers say the general guideline is anywhere from one-month's to three-months' salary.

13. Is bigger really better?

Size is only one of the four C's for assessing diamonds. A small, high-clarity, high-color diamond can cost more than a large, low-clarity, low-color diamond. You can find a one-carat diamond for as low as a few hundred dollars, but it won't be as pretty as a smaller, better quality one.

14. What is the world's largest diamond?

The world's largest diamond on record is the 3,106-carat Cullinan, found in South Africa in 1905. The Cullinan was eventually cut into nine large stones and about 100 smaller ones. The two largest, called the Star of Africa I and II, are on display in the Tower of London.

15. Why are diamonds so expensive?

They are rare — period. Only a few diamonds survived the violent eruptions that brought the billion-year-old stones within our reach. Estimates show that only 500 tons have been mined throughout history. To add to their rarity, only 50 percent of mined diamonds are gem-quality. Even fewer are big enough to be polished into diamonds not much bigger than the head of a match.

16. What is the difference between a synthetic diamond and a simulant?

Synthetic diamonds are real and simulants are fake. Lab-created, or synthetic, diamonds have the same chemical composition, brilliance, hardness and atomic structure as natural stones. Scientists can grow diamonds in a matter of days by recreating the same conditions of intense heat and pressure that formed natural diamonds billions of years ago. A good jeweler will tell you whether a diamond is natural or synthetic. But because it is hard to identify synthetics, many diamond buyers get reassurance from an identification report from a gemological laboratory, like the Gemological Institute of America. The Federal Trade Commission now requires all synthetic diamonds have a laser inscription. Diamond simulants, such as cubic zirconia or moissanite, do not have the same brilliance, hardness or chemical properties of a diamond.

17. How can I tell between a real and a fake?

At roughly $5 a carat, cubic zirconia is a very cheap diamond substitute. It's also easy to recognize as a fake. For instance, it is about twice as heavy as a real diamond and it has a light blue cast. Moissanite, however, is almost as hard as diamond and even more brilliant. At about $600 a carat, it can fool many professionals. If you still can't tell if your diamond is authentic, you can spend $50 to $75 to have it professionally appraised.

18. How can I clean my diamonds?

Keeping your diamonds clean will help them reflect light better and look bigger. Because diamonds tend to attract grease, they should be cleaned once a month with a toothbrush in a mix of warm water and any mild liquid detergent. Rinse them under warm running water then pat dry with a soft, lintless cloth. Or do a cold-water soak in half water and half ammonia for 30 minutes, then tap with a brush, swish in the solution one more time and drain on paper (no rinsing required).

19. How can I maintain my diamond?

To protect your investment, don't wear your diamonds when you're cleaning or doing rough work. Diamonds are highly durable but chlorine bleach will deteriorate mountings and a hard blow can chip a diamond. And don't throw all of your jewels together in a box, since diamonds will scratch other diamonds and the rest of your jewelry. An annual check-up at your jeweler will help you keep an eye on loose settings and signs of wear.

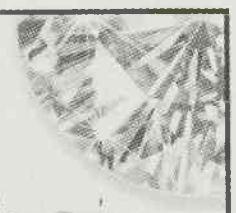
20. What else, other than jewelry, are diamonds used for?

Industrial quality diamonds are small, lower-quality stones. Diamonds are used as a cutting tool, abrasives or turned to powder or paste for grinding and polishing. As new methods for growing diamonds emerge, so do new ways to take advantage of the stone's properties from super electronics to unscratchable surfaces.

— Compiled and written by Allison Baker, McClatchy-Tribune Information Services

SOURCES: WWW.KIMBERLEYDIAMONDS.COM.AU, WWW.NATIONALJEWELERSSUPPLIES.COM,WWW.JCKONLINE.COM, WWW.HISTORY.COM, WWW.GEMESSENCEDESIGNS.COM, WWW.USATODAY.COM, WWW.DIAMONDFACTS.ORG, WWW.DIAMONDCUTTERSINTL.COM, WWW.STOPBLOODDIAMONDS.ORG, WWW.KIMBERLEYPROCESS.COM, WWW.DIAMONDS.NET, WWW.CNET.COM

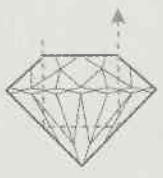
Exploring a diamond's cut



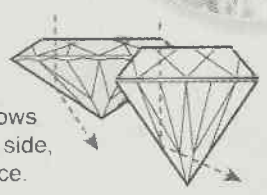
The cut of a diamond determines how well it reflects light.

Proportion

A well cut and proportioned diamond should reflect light side to side and back toward you.



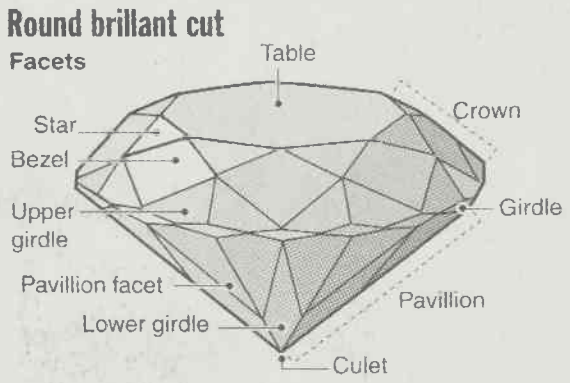
A diamond cut too shallow or deep allows light to leak out the side, reducing its brilliance.



Shape

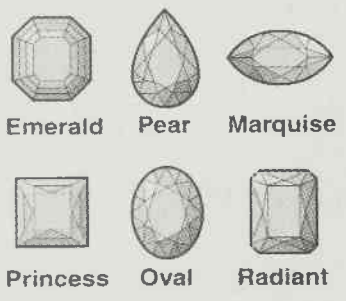
A diamond's cut also refers to its shape. The most common shape is the round brilliant cut. More than any other shape, its symmetry allows it to reflect nearly all the light that enters it.

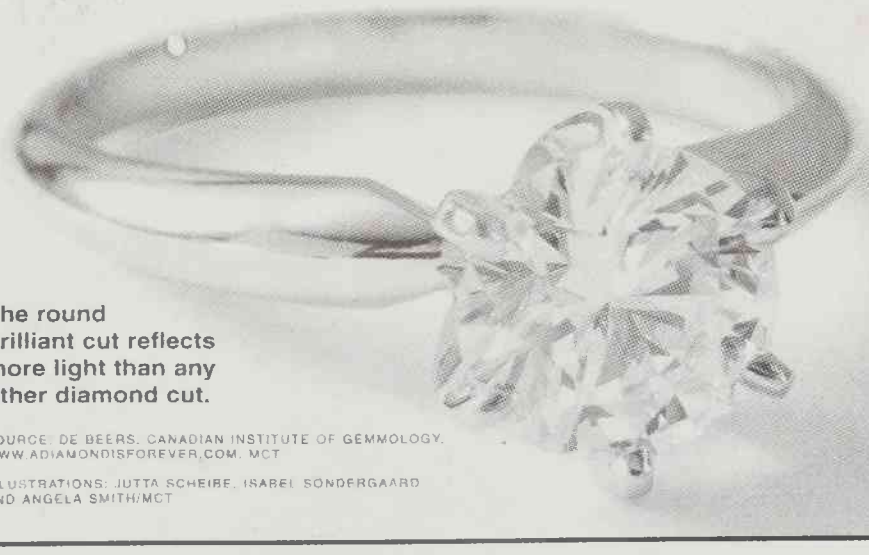
Round brilliant cut



Selected cuts

Other diamond shapes:





The round brilliant cut reflects more light than any other diamond cut.

PHOTO COURTESY OF BLUE NILE

SOURCE: DE BEERS, CANADIAN INSTITUTE OF GEMMOLOGY, WWW.ADIAMONDISFOREVER.COM, MCT

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