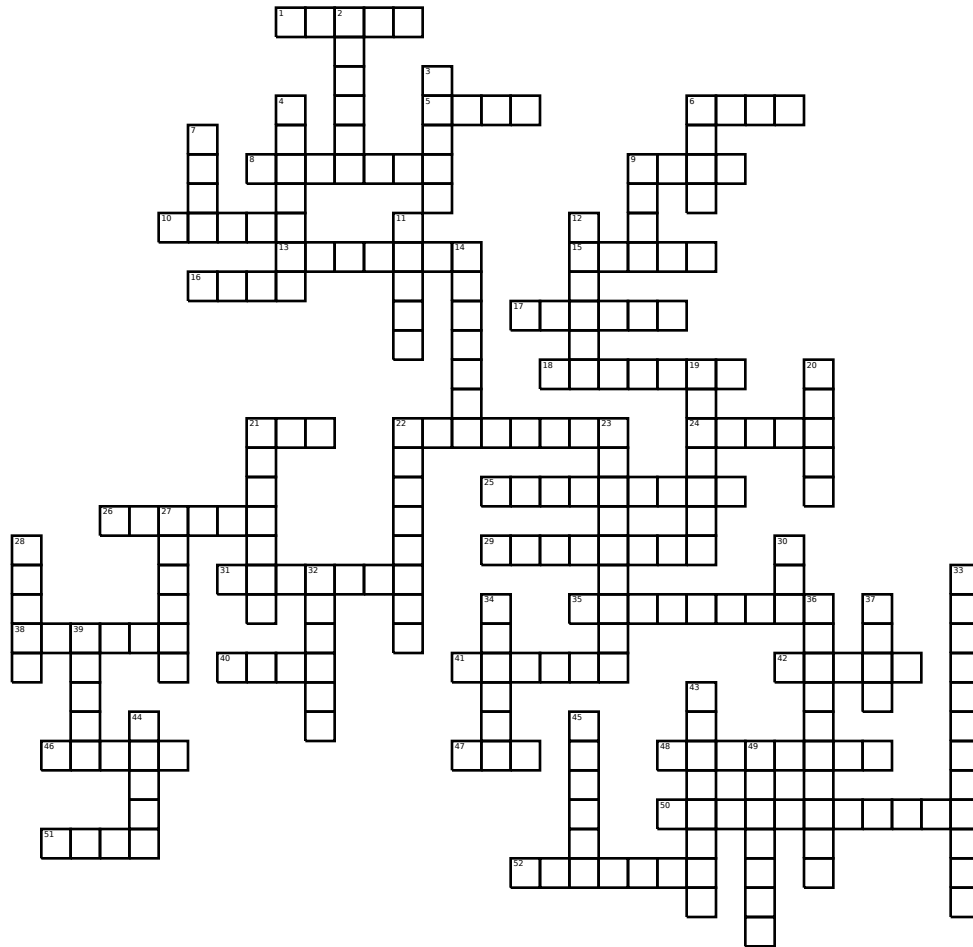


Pearls

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A puzzle of pearls only the finest nacre-covered-nuts will crack.



Across

- 1 A ring of coral encircling a lagoon, often created by volcanic activity. Atolls are considered the best place to farm cultured pearls from the *Pinctada margaritifera*.
- 5 Unit of weight historically used in Persia to value natural pearls. One abas is equivalent to 0.91 carats.
- 6 The Japanese term for luster.
- 8 An algal bloom which is devastating to pearl mollusks.
- 9 Author of *The Book of the Pearl* published in 1908.
- 10 Historical Persian quality factor describing natural pearls of a yellow color.
- 13 Removing the outer layers of a pearl in the hopes of finding a better quality pearl underneath.
- 15 The Japanese name (*akoya-gai*) of the *Pinctada fucata martensii* mollusk used in cultured akoya pearl production.
- 16 Ancient Roman imitation pearls made from glass with a coating of silver and another layer of glass.
- 17 Historical Persian quality factor describing natural pearls of secondary quality.
- 18 A color treatment which produces a subtle change in a pearl's color.
- 21 Historical Japanese unit of weight used to value cultured pearls. One is equal to 3.75 kilograms.
- 22 Spinning a pearl over a pointed light source to determine the depth of nacre.
- 24 Floatation devices used to hold line systems to which grafted mollusk shells are attached above the sea floor.
- 25 The Latin word for pearl derived from the Greek word *margaros*, or pearl oyster.
- 26 A strand of pearls measuring 10 to 13 inches.
- 29 A secondary color on the surface of a natural or cultured pearl.
- 31 A mollusk from the class *Bivalvia* which has a two-part shell attached by a hinge.
- 35 A common whitening treatment applied to most cultured akoya and freshwater pearls, and occasionally applied to cultured South Sea and Tahitian pearls.
- 38 The organ covering the body of a mollusk.
- 40 Historical Persian quality factor describing perfect pearls larger than 7 mm.
- 41 A wooden nose-clamp used by natural pearl divers in the 19th century.
- 42 The reproductive organ of a mollusk where beaded cultured pearls are grown.
- 46 An organic gem produced as an accidental natural secretion of a mollusk, or intentionally with human intervention.
- 47 The first impression of a pearl's color.
- 48 An optical phenomenon created by light moving along the parallel layers of mother-of-pearl within a cultured pearl.
- 50 The organic substance which acts like glue, holding aragonite crystals in place.
- 51 A genus of the Unionidae family found to produce pearls regularly.
- 52 Historical Chinese unit of weight used to evaluate pearls associated with the weight of a grain of wheat or rice.

Down

- 2 The optical phenomenon which produces iridescent colors on the surface of some natural and cultured pearls which is creation by the thin-film interference and diffraction of light from within a pearl's surface.
- 3 Historical trade term used to describe the translucency of a pearl.
- 4 The Maori term for the *Pinctada maculata* mollusk.
- 6 Indian unit of weight equal to 72 grains or 24 ratis.
- 7 The Japanese term for the 45 day convalescence period following the grafting operation.
- 9 The coral rock platforms on which pearl farms are built on Manihiki in the Cook Islands.
- 11 Historical Persian quality factor describing blister pearls.
- 12 The Japanese name for a cultured blister pearl.
- 14 The common French term for the grafting process used in French Polynesia.
- 19 Arabian term for sugar used to describe pearls from the Persian Gulf due to their slightly off-white, yellowish color.
- 20 Japanese for "poppyseed". The term refers to a small natural or cultured pearl.
- 21 Historical Persian quality factor describing black pearls.
- 22 Line extensions of a pearl farming long line system which are secured to the shells.
- 23 The *Tridacna gigas*, a natural non-nacreous pearl producer.
- 27 The quantity and quality of light reflected from the surface or just under the surface of a natural or cultured pearl.
- 28 Japanese unit of weight used to value cultured pearls. One is equal to 3.75 grams.
- 30 Historical unit of weight used to value natural pearls in China during the Ming dynasty. 1 is equivalent to 500 grams.
- 32 Historical Persian quality factor for the best color natural pearl (white color).
- 33 Listed in Guinness Book of World Records as largest natural abalone pearl from the *Haliotis rufescens*, weighing 469.13 carats.
- 34 The Japanese word for pearl.
- 36 Freshwater mussel larvae.
- 37 Infant marine mollusks that attach to a hard surface.
- 39 Platelets of aragonite and calcite bound together by conchiolin, the composition of natural and cultured pearls.
- 43 A large family of gastropods commonly known as abalone.
- 44 Japanese term for scaly spots on cultured akoya pearls.
- 45 A 19th century pearler's basket used to hold mollusk shells and a knife.
- 49 The bead which is inserted into a host mollusk around which a pearl forms.