Compound

Compounds are the most technically advanced bows in archery today. They incorporate a massive range of different features to aid the archer in producing the most accurate shot possible. They are much shorter and more aggressively shaped than recurves, and use specially machined wheels known as cams to propel the arrow.

Cams are the main area where compounds differ from other bows, and give the archer some distinct advantages. Firstly, the cams are engineered to generate very high amounts of speed from the power in the bow's limbs. A compound is much faster than a recurve bow of the same limb strength. The other main benefit of cams is that they change the forces on the archer when drawing the bow and when holding it at full draw. Instead of the smooth, gradual build in weight experienced with a recurve, compounds place a high amount of pressure on the archer at the start of the draw and then 'let off' when they reach around 1/2 to 2/3 of the draw length. What this means is that though the archer will start off holding a high amount of draw weight, i.e. 50lbs, once they reach the 'peak' of the draw a set percentage of this weight is removed from the archer and stored in the cams. This means that an archer drawing a bow with a weight of 50lbs and an 80% let off will be holding that weight until they reach the peak. At that point 40lbs will be transferred from the archer's body into the cams and leave them holding only 10lbs.

Another big difference with compound bows is in the shooting aids that can be used to produce the best shot. Most compound shooters use a mechanical 'release aid' which is a kind of trigger that attaches to the string to give a much cleaner and more consistent release of the arrow than with just the fingers.
As well as all this, compound archers can still enjoy all the benefits of the rods, weights and dampeners explained in the recurve section. They are also allowed to use sights with magnifying properties and even tiny levelling bubbles (similar to spirit levels) for maximum accuracy. They also can use a tiny ring of plastic or metal known as a 'peep' woven into the bow's string to further aid alignment with the target.
Because of all these technological advantages, compound archers do not shoot against recurves or any other bows in tournaments. They are in a separate division and compete amongst themselves for prizes, as do all other bow styles.