

Why The Clock Face Has 12 Numbers



Analysis: *Thales sacrificed bulls in thanksgiving when he discovered that the circle divides exactly in two symmetrical halves along the diameter.*

The diameter is the longest chord in the circle. You can see this by making folds not on the center.

Fold it again. The new fold divides the diameter in half. (This is the radius.) We observe that the circle has been divided into 4 congruent sectors. The angle at the center is a very special one It is called a Right Angle.) (Demonstrate that the doors, windows, paneling, bulletin boards are made with this angle.)

Folded three times, and more we cannot find the number 6 or 12 in the circle. What we did find is that the circle can be divided into fractional parts. Each pizza-like slice of the circle being a congruent sector.

How To: Continued.

Lets take our plain paper without lines and our plastic coffee-can covers and see if we can go at this search for the number 6 and 12 in the circle in a different way.

Make a dot on the paper so that you can use it as the center for the circle you will be constructing. Center the coffee-can cover on the dot. and trace the circumference. Allow room on your paper for two or three circles.

Lets take our straight edge and draw a diameter. It may be convenient to make it in the vertical direction.

Now, we've divide the circle in half. What we would like to do is divide each half again into 6 arcs/sectors. That is we are looking for a way to make the clock number intervals! We can do this with nothing more than our coffee-can cover arc making compass

How would you go about it? Any ideas?

How about sliding the center of the coffee can cover to one point where the diameter intersects the circumference?