

Track & Field Notice

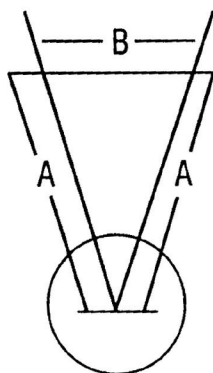
The NFHS adopted for the 2007 Track and Field season a throwing sector of 34.92 degrees for both the shot put and the discus. Because the change was adopted for safety reasons, the IHSA has adopted the new sector for this year's State Series. We also highly recommend that schools use the new sector through the coming 2006 season.

XIX SETTING UP A SECTOR

A 34.92-degree angle is the angle between the two equal sides of an isosceles triangle that has the unequal side 0.6 times the length of the equal sides. It can be mathematically expressed as $2\arcsin(0.30)$. Illustrated below is a typical layout for a shot circle. Measure out from the center of the circle with two tapes. Pull the two tapes tightly and separate them by 12 meters at the 20-meter mark on each tape. It will take three people and three tapes to do this. One person holds the two tapes, which will locate the sector lines in the center of the circle. The second person pulls tightly on one of the sector line tapes and holds the zero mark of the cross measuring tape at the 20-meter mark. The third person pulls tightly on the other sector line tape and holds the 12-meter mark of the cross measuring tape at the 20-meter mark. The sector lines are centered on the stop board and permanent pins or stakes are placed at the ends of the sector lines. The sector lines can be extended if longer throws that the ends of these sector lines (18.93 m) are anticipated.

Sectors for the discus and hammer are set up in similar manner, keeping the ratio of cross measurement length to sector line length at 0.6. For example, one might use sector lines of 60 meters and a cross measurement of 36 meters for the discus and 70-meter sector lines and a cross measurement of 42 meters for the hammer.

NOTE: The javelin sector is set out in a similar manner, except the sector angle is 28.96 degrees, which is the angle between the two equal sides of an isosceles triangle having the unequal side 0.5 times the length of the equal sides and is mathematically expressed as $2\arcsin(0.25)$.



A(meters)	34.92 B(meters)	40.00 B(meters)
5	3.00	3.420
10	6.00	6.840
15	9.00	10.261
20	12.00	13.681
25	15.00	17.101
50	30.00	34.202
75	45.00	51.303
100	60.00	68.404