THE POWER OF FITS

We can easily determine what our minimum fit is based on what we learn from the auction and the opponents.

Hypothesis:

*When they have a fit, we have a fit.*

Rule #1

*When the opponents have an eight card fit our minimum fit is 7.*

This rule is proven in the following manner:

The opponents have the following auction:

1S P 2S ?

The opponents have a minimum fit of 8 Spades. That leaves no more than 5 Spades for us. Since each of our hands has 13 cards for a total of 26 cards for the partnership, and we – as a partnership – hold no more than 5 Spades, 21 of our cards must be Hearts, Diamonds and Clubs, the 3 remaining suits. When we divide 21 by 3, the product is 7 – the number of cards that we could have as a partnership in each suit.

If you held Ax Axxx Kxxxx xx, the only instance in which your partnership would not have an 8 card fit is when your partner held 3S 3H 2D 5C.

This is represented in the following equation:

\[
26 - (13 - \text{their minimum fit})/3 = \text{our minimum fit}.
\]

26: the total cards held by the partnership.
(13 – their minimum fit): the minimum number of cards held by the opponents in their suit.
3: the number of the suits remaining.
Rule #2

If the opponents have a nine card fit, we must have at least one eight card or longer fit.

1S  P  3S  ?

In this auction the opponents typically have 9 or more Spades. Using the fit formula we can determine the following:

\[ 26 - \frac{(13 - 9)}{3} = 7.333 \]

26: the total cards held by the partnership  
(13 – 9): their minimum fit subtracted from 13 (the total number of Spades)  
3: the total number of suits remaining.

Since cards are always whole numbers (you cannot have 1/3 of a heart for example) we must have at least one 8 card fit.

An alternative way of expressing this rule follows:

Rule #2A

Whenever the partnership has fewer than 5 cards in any given suit, we must have at least one 8 card fit.

By the use of this formula we can also determine the following minimum fits:

When the opponents have a 10 card fit:

\[ 26 - \frac{(13-10)}{3} = 7.666 \] One 9+ fit, or two 8 card fits.

When the opponents have an 11 card fit:

\[ 26 - \frac{(13-11)}{3} = 8 \] One 10+ fit, exactly one 9 AND one 8 card fit, or three 8 card fits.

When the opponents have a 12 card fit:

\[ 26 - \frac{(13-12)}{1} = 8.333 \] One 11+ fit or exactly one 10 AND one 8+ card fit, or two 9 card fits.
When the opponents have a 13 card fit:

$$26 - (13-13)/3 = 8.666$$ one 12+ fit or exactly one 11 AND one 8+ card fit, or exactly one 10 AND one 9 card fit, or one 10 AND two 8 card fits, or exactly two 9 AND one 8 card fits.