

▼ A Style**▼ 1 Evaluation**

- A Open most balanced 12-counts
- B Almost never demote balanced hands when opening the bidding

▼ C Seldom demote hands with stiff honors

- I But consider demoting if the hand will pose a rebid problem

- 2 Slow arrival

▼ 3 4th suit GF by UPH, artificial F1 by PH

- A PLOB
- B Jump in 4th suit is natural and invitational
- 4 Doubles of pass or correct bids show the suit doubled

▼ 5 When we've bid 3 suits and responder bids a NF 2NT

- A Opener's cheaper suit is the only NF and the 4th suit is forcing with opener's cheaper suit. 64s are more important to show than 3-suiters.

▼ **B Summary for online opponents**

- 1 5533. 1N=15–17, can have 5-card major. Weak 2!d!H!S. XFR/1!d and 1!H o'calls. UDCA. Special Smith Echo. Our CC: bit.ly/mp-aw-cc

▼ C 1N openings (15–17)

- 1 Often contains a five-card major

▼ 2 Non-comp

▼ A 2c = Stayman

▼ I 2♦

▼ 3M = Smolen

- Over 3♠, responder's 3N and 4m are shape showing slam tries
- Over 3N, responder's 4m is natural
- 4d, 4H = Delayed Texas

▼ II 2M

▼ 2S = Five card invite not 5332

- Now opener's 2N is F1, 3x = values for spades
- 2N = INV w/4OM
- 3m = GF, 5+m, 4OM

▼ 3OM = shortness somewhere

- Relay asks for shortness by steps
- 4c = balanced slam try with 4M
- 4d = 1430 RKCB
- 4OM = 4OM + 4c, 4432, slam invite
- 4N = 4OM + 4d, 4432, slam invite

▼ B 2d, 2H = xfr with 1430 RKC Baze, 4c = balanced

▼ I 2d = H, could be 1444 or 55 majors GF

▼ 2H = not preaccept

▼ 2S "forces" 2N

▼ 2N

- 3m: 5H, 5m, INV
- 3H: 5H, 5S, INV
- 3S: 5H, 5S, F
- 3N: 1=4=4=4 GF
- 4c: 1=4=4=4 F

▼ 3H = I would accept any game try

- 3S, 3N, 4C as above

- 2N = INV, not 55

▼ 3m = Natural GF 4+

▼ 3M = support

- New suits are shape showing slam tries
- 3N = 5422 slam try
- 3OM = concentration
- 4m = support

- 4om = support for both, top 50% of hands for slam
- Opener may have to bid 3N without stopper in OM
- 3H = Natural INV
- ▼ 3S = slam try with some shortness
 - 3N asks for shortness by steps
 - 3N = Choice of games
 - 4c = slam try, 6 card suit, no shortness
 - 4d = 1430 RKCB
 - 4H = signoff
- ▼ 2S = Any preaccept
 - 2N = regular transfer, requests 3H
 - Higher = same as above
- ▼ II 2H
 - ▼ 2S = not preaccept
 - 3H = Shortness somewhere, usually 6331 or 7321
 - 4c = Balanced slam try, 6+ M
 - 4d = 1430 RKCB
 - 4H, 4S = Signoff
 - ▼ 2N, 3c, 3d = SSGT with c, d, H respectively
 - 3H = retransfer
 - 3S = Pre-accept, no short suit to show
- ▼ C 2S = Range ask or clubs or 5-5 minors GF
 - ▼ I 2N min, 3c max
 - 3d = 55 minors GF – no artificial followups
 - 3M = 6+C, SPL
 - 3N = s/o over 3c, mild try with 6 clubs over 2N.
 - 4c = sets trump, no short suit
 - 4d = short diamonds
 - 4M = 5M 6c not slammish
 - 4N = club invite, 2=2=4=5
 - ▼ D 2N = Diamonds with pre-denial or 5-5 minors weak
 - ▼ I 3c = I would not accept a diamond invite, 3d = I would
 - 3M = 6+d, SPL
 - 3N = s/o
 - II 4N = invite, 2=2=5=4
- ▼ E 3c = Simple Puppet, 3d = no 5-card Major
 - I When followed by 4m it's 5332 natural slam try
 - II Followed by 4N is 4432 with 44 in the minors.
 - III Over 3M, the other major is a slam try with a fit.

- ▼ F 3d = Forces 3H with minor suit shortness, not 544
 - I 3S: 4=4=4=1
 - II 3N: 4=4=1=4 NF
 - III 4c: 4=4=1=4 F
- G 3M = 13(45), short in M, 3H could also be 4=1=4=4 GF, opener bids 3S to check for 4S
- H 4c = Gerber (0, 1, 2, 3)
- I 4d, H = Texas = Mild slam try, good trump, no shortness (not a slam try in comp)
- J 4S = To play
- K 4N = Invite, should be some 4333
- ▼ 3 Comp
 - ▼ A They overcall directly
 - ▼ I Dbl.
 - Pen – DONT runouts
 - ▼ Not Pen (including Brozel)
 - System on
 - XX = good hand, interest in penalties, forcing to 2NT
 - ▼ II 2c
 - ▼ Landy (also 2D = Majors)
 - Double = penalty interest, asks opener to double with 3 trump
 - 2d = natural, competitive
 - 2M = Stopper, forcing to 2N
 - 2N = Natural
 - 3c = INV+ with diamonds
 - 3d = GF with clubs
 - 3M = shortness with both minors
 - ▼ Not Landy
 - Front of card, including over a natural 2♣
 - Transfer into their suit shows shortness, INV, likely 4441
 - ▼ III Natural 2d
 - ▼ Transfer Lebensohl
 - ▼ 2N forces 3C
 - 3d = clubs with short diamonds
 - 3M = C + opposite M, GF
 - 3N shows stopper
 - ▼ 3C = Unbalanced Stayman (could be 5422), with Smolen
 - (Stayman without shortness starts with Double)
 - 3D = H invite +

- 3H = S invite +
- 3S = 55 Majors
- 3N = to play
- ▼ IV 2d either major
 - ▼ Pass
 - Followed by dbl = Neg X of H
 - Followed by 2N over 2M shows both minors, could be 2=3=4=4 over 2H
 - ▼ (2M) Dbl by opener = M
 - In general opener's doubles of art bids = pen
 - Dbl = Neg Dbl of S
 - 2M natural
 - ▼ 2N + transfer lebensohl
 - 2N . 3M = C + M GF
 - 2N . 3N = clubs, mild slam interest
 - 3S = both minors, GF
- ▼ V Natural 2M
 - ▼ Transfer Lebensohl
 - ▼ 2N forces 3♣
 - lower suit = to play
 - cue = clubs, short in their suit, COG or better
 - higher suit = C + suit, GF
 - Slow 3N does not exist
 - 3C = D invite +
 - 3D = OM invite +
 - ▼ Cue = shortness, with 4OM
 - (With 5-4-3-1 responder bids 3OM to show both minors)
 - (4OM w/o shortness starts with double)
 - Double, then Q = 4OM, no stopper
 - ▼ 3OM = minors
 - 3S = punt
 - ▼ Over any transfer opener's cue, if available, says "don't bid 3N with a stiff in their suit."
 - Typically opener would have a doubleton in responder's M and either 1 stopper in their suit, Axx, Qxx, or no stopper in their suit, Jxx, xxx.
 - With no stopper and no fit opener needs a pretty good hand to accept the invitation
 - ▼ Dbl. = neg., denies a void in their suit
 - FG when followed by three of their suit or higher
 - Opener passes only with four strong trump

- 1N (2H) X P
 - 2S (P) 3N = s/o -- may have been hoping opener could pass the double
- Dbl. then Q = balanced, 4OM, no stopper
- ▼ VI 2H Majors
 - Dbl. = neg., passable
 - 2S = neg., unbalanced
 - 2N = Lebensohl
 - 3m = other minor, INV+
 - 3M = shortness, both minors
- ▼ VII 2N, 3c, 3d
 - Transfers, INV+ where room, 3c = Stayman if available
- ▼ VIII 3H (from Pepsi)
 - ▼ Dbl = 4 or 5 S, could be 6S slam try, forcing to game
 - ▼ 3S = 3S
 - 3N = to play
 - 4♣ = d
 - 4d = ♣
 - 4H = ♠ slam try
 - ▼ 3N = 2S
 - 4♣ = d
 - 4d = ♣
 - 4H = ♠ slam try
 - 3S = minor-suit oriented transfer to 3N, one or both minors
 - 3N = to play
 - 4♣ = d
 - 4d = ♣
 - 4H = Texas, signoff
- ▼ B They overcall after we transfer
 - ▼ I 1N (P) 2d (2S)
 - P (P)
 - X = takeout
 - 2N = Competitive, one or two-suiter, like lebensohl
 - 3x = natural GF
 - 3M = INV
 - 4T = retransfer
- ▼ C They double our Jacoby transfer
 - I Opener accepts with support and passes without support

- ▼ II Responder's XX is a retransfer
 - Now new suits are signoffs, to play in a real fit instead of a known 5-2
 - III If responder completes his own transfer he shows a mild game try
- ▼ D If responder has bid our doubles are penalty behind the bidder and takeout in front
 - I Except after Stayman x = pen @ 2 and 4 level, pen by opener @ any level
- ▼ E If responder has not bid doubles are for takeout
 - I 1N 3x P P DbL = t/o -
 - ▼ II Except their artificial bids
 - 1N (2D multi) P (2H) DbL. = H
- ▼ F Responder's doubles are for penalties except
 - I 1N (P) 2H (2S) P (P) X as above
 - II Negative double over direct natural overcall, immediate or delayed
 - III 3 level after Stayman
 - IV 1N p p 3x p p X = t/o
- ▼ G They double Stayman
 - ▼ I P = no stopper or 5+ good clubs
 - ▼ XX = re-Stayman
 - ▼ 2d = no major
 - Now responder's 3M is natural and forcing, "Reverse Smolen".
 - ▼ 2M = OM
 - 2S = INV / 2H
 - 3c = slam try in OM
 - Jump to 3S = F
 - ▼ 2N = both majors
 - 3m = slam try in corresponding Major
 - 3M = INV
 - 2d = weak
 - 2H = pass or correct
 - 2S = INV
 - II XX = decent clubs, 4+
 - III Bidding promises a stopper
 - IV Similar if they double 3c, whether we've opened 1N or 2N
- ▼ H They double 2S
 - ▼ I P = no spade stopper, or 5 good spades
 - XX asks range
 - 3c = forcing with clubs

- II $XX = 4+$ decent spades
- III $2N, 3c = \text{min/max with stopper}$
- I When we make a neg X of 2M, opener's 2N is scrambling

▼ D Minor suit openings

- ▼ 1 We open 1C with (32) 4=4 if planning to rebid in NT.
 - A Not with (4-1) 4=4, because we need a rebid over 1S or balanced invite response.
- ▼ 2 With 4-5 in the minors
 - A Open 1c if planning to rebid 1N
 - B Open 1d otherwise unless skewed – weak diamonds and strong clubs
- ▼ C 1d 1M 2c = 54 either way, responder assumes equal or longer d. Over 1S opener could also be 1=4=5=3.
 - ▼ I Opener can rebid 2d with 1=4=5=3 and a strong suit, but it shows 6 so 2N is F1
 - Opener's 3OM shows shortness even though we might have a 4-4 H fit. Tough.
- ▼ 3 Responses
 - ▼ A 1d
 - ▼ I Can be bid with 5d and a 4 card major if INV+
 - Better to start with 1M unless strong diamonds and weak M
 - With 6 good d and 4 weak M respond 1d
 - ▼ II 1H Natural, promises at least 4 clubs
 - Usually unbal or semi-bal, but could be 4432 with a small doubleton
 - ▼ 1S F1, INV+ with or without spades
 - ▼ GF w/o 4S if followed by a spade bid
 - Except when opener raised to 2S...
 - 2S 4+S, GF
 - III 1S Like 1H
 - ▼ IV 1N
 - ▼ 2-way CB by UPH
 - ▼ 2c forces 2d
 - 2M = balanced invite, 4-5, little interest in diamonds.
 - 2N = club invite, art, f1
 - 3c = s/o
 - 3d = INV
 - 3M = SPL, exactly 4 clubs
 - 2d = art GF
 - 2M = Shape invite, likely 4-6, interested only in 4M or 5d
 - 2N = Natural invite
 - 3m = Natural GF
 - 3M = Self SPL
 - No checkback by PH, all bids natural and NF
 - V 2c – promises 6, now responder's 2N is F1

- ▼ VI 2d = Usually 4, 3 possible
 - 3c = signoff
- ▼ VII 2N
 - ▼ 3c forces 3d
 - 3M shows shortness with diamonds or club support
 - Higher bids show Hxx+ clubs, 4 or 5 diamonds, no shortness, 3N = mild slam try, 4N = full value INV exactly 3c
 - 3d = natural GF
 - ▼ 3M shows the other major
 - Opener's 3S shows 4H, in case responder is 4450
 - 4c = Self-SPL
 - 4d = diamonds RKCB
- ▼ B 1M
 - I 1H-2H-2N = Natural game try, F1, 4 or 5 H
 - ▼ II 1m 1H 1S
 - We bypass 1S over a 1H response only with 4333
 - ▼ 2om
 - 2H = Often honor doubleton
 - ▼ 2S = punt ("PLOB")
 - Similarly, 1c 1d 1S 2H 2S
 - 3m = Six card suit, or a good five bagger
 - 3H = 43(51) good 14+
 - ▼ 1c 1H 1S 1N
 - 2c = nat
 - ▼ 2d = weak with 3H or a good hand, responder bids 2H
 - ▼ 2H is normal, responder can bid 3H with a good maximum and 5(+) H
 - Pass – common
 -
 - 2H = 3H with extras
 - ▼ 1d 1H 1S 1N
 - ▼ 2c = d
 - ▼ 2d normal
 - 2H = 436 extras
 - 2N = raise to 2N with 6d
 - 3c = 544, not enough to jump to 3c over 1N, so 15-16
 - ▼ 2d = weak with 3H or a good hand, responder bids 2H
 - ▼ 2H is normal, responder can bid 3H with a good maximum and 5(+) H
 - Pass – common
 - 2N = INV, likely 4=2=5=2, doubleton H honor

- 3d = 4=3=6=0, better than 2c followed by 2H
- 2H = 3H with extras
- 2N = Natural, hearts not as good as honor doubleton
- ▼ III 1N
 - Could be 6322 with honors in both doubletons, Qx or better.
 - ▼ We "never" rebid 1N with a small singleton
 - With 1=4=5=3 rebid 2d over a 1S response with good diamonds, or 2c otherwise.
 - ▼ 2-way checkback by UPH (off when they've bid a suit)
 - ▼ 2c forces 2d
 - ▼ 2M = interested in 4M opposite support
 - ▼ typically 5431 10 HCP, could have weak 6-carder
 - Without support opener typically passes but can choose to bid 2N with 14 HCP
 - 2N = high-card invite with 5M
 - 3c = signoff
 - 3N = 5332 choice of games, usually doubleton in opener's minor
 - ▼ 2d = GF
 - If M = S then 2H is artificial and denies 3S, 2S shows 3S (review)
 - If M = H, we bid naturally, 2S shows 4=3=3=3 after a 1c opening
 - If opener shows three-card support then 3N is a choice of games, but voting for 4M unless opener is seriously "notrumpy".
 - 3X = Natural GF, "pure" hand
 - ▼ 1m 1H 1N 2S = 5-4 invite, for symmetry with 1d response
 - ▼ 1d 1h 1n 2c 2d 2s = unbal inv 5H 3+d (review)
 - Responder has no invite to show 4-4 in the majors because opener has denied 4S
- ▼ IV 2m (2d shows 6, though could be five good ones over 1S)
 - Never as much as 16 HCP
 - ▼ "Never" 3 cards in M
 - Note that 1m 1M 2m 2N 3M shows shortness!
 - ▼ 2NS F1, INV+
 - 2M, 2N, 3m = NF
 - ▼ 2N = NF/c, F1/d
 - 3M, 3OM = short, F1 (opener would have raised with 3, even xxx)
 - 3 of a new suit (non-jump) = GF, NAT
 - Jump in NS = Natural 5+ 5+ GF
 - V 2om - normally opener rebids 2c with 1=4=5=3
 - ▼ VI 2M
 - ▼ a 2M+1 = artificial ask - (review)

- 1 3 trump min bal, responder sets the contract
- 2 3 trump min unbal with relay [see 7 below]
- 3 3 trump max unbal with relay
- 4 4 trump min bal (return to our suit)
- 5 3 trump max bal (3M+1)
- ▼ 6 Higher = 4 trump max
 - 4m = 5422
 - 4x = SPL
 - 4M = bal, must be 4432
 - 1m 1H 2H 2S 3N = 4 trump, singleton S
- ▼ 7 Over any unbal, next step asks for shortness low/high, except
 - ▼ 1d 1H 2H 2S 3c 3d = to play, 3H = asking
 - More important to be able to sign off in d than H
 - With 5H responder should consider a different invite
- ▼ b 2N / 2H = F1, often exactly 4H
 - 3m, 3c = NF
 - 3M = 4M, minimum
 - 3N = 3M, maximum
 - 3S, 4m = 4 trump, maximum, SPL
- ▼ c All bids above 2N promise 5M
 - 3 new suit – Game try, 5M
 - 3N = 5-card choice of games
- d Note that we "never" rebid 2m when holding 3M
- ▼ VII 2N – Transfer checkback
 - ▼ 1m 1H 2N
 - 3C = forces 3d, if continues shows support for minor
 - ▼ 3d -> H
 - 3S = 5H, unbalanced
 - 3N = 5332
 - 4m, 4om = natural
 - 4H = signoff
 - ▼ 3H = S (with 4 or 5 H)
 - 3N denies 4S or 3H
 - 3S = 3H
 - 4X shows 4S
 - 3S = other minor, usually canapé, willing to play 3N
 - 3N = to play
 - 4m = self-splinter (no self-splinter in spades available)
 - ▼ 4H = mild slam try (review)

- Because no fast arrival
- 4N = Natural INV
- ▼ 1m 1S 2N
 - 3C = forces 3d, if continues shows support for minor
 - ▼ 3D = Hearts, or just checkback for spade support
 - ▼ 3H = 2S and 3 or 4 H, in other words, more H than S
 - 3S = real hearts
 - 3N = signoff, was hoping for S support
 - ▼ 3S = 3S
 - 3N = Forcing Balanced ST, denies decent side 4-card suit.
 - 4x = Natural, forward-going.
 - 3N = 2-2 in majors
 - ▼ 3H = S and forces 3S
 - Now 3N = 5332 choice of games
 - 4S = signoff
 - 3S = other minor, usually canapé, willing to play 3N
 - 3N = to play
 - 4c , 4d, 4H = self-splinter
 - 4S = mild slam try (review)
 - 4N = Natural INV
 - ▼ 1m (1S) DbI (P) 2N
 - ▼ Same as 1m 1H 2N except:
 - 3c 3d 3S is short spades with 4H and opener's minor
 - 3d 3H 3S is specifically a stiff S with 5H
 - 3H shows spade shortness with 6+H
- ▼ VIII 3M shows full values.
 - This hand is not nearly good enough:
 Axxx
 Kxxx
 AQTx
 x
- ▼ IX A jump reverse shows a shaded raise to 3, on in comp
 - e.g., Ax KQxx xx KQxxx
 - If only one is available it can be any shape
 - ▼ 1c 1S 3d = short d or 5422
 - 3H asks opener to bid game with short d
- ▼ X MAB over opener's raises to 3M, direct or with an ambiguous jump reverse
 - Step responses as usual: None, lower shortness, higher shortness
- ▼ C 1N 8-10/1c, 6-10 (could be less) / 1d

- ▼ I 2R = F1
 - 2N NF
 - 3c, 3m NF
 - Others GF
 - II 3R = self-splinter
 - ▼ D 2m 4+, forcing to 3m, on by PH
 - I New suits show stoppers, do not promise extras
 - II 1m 2m 2N 3x (higher than m) = shortness
 - III 1m 2m 2M 2N 3x = fragment, short in 4th suit
 - IV 3m is always NF -- we can always stop.
 - V 4m is always forcing, except when partner has limited himself with 3m
 - ▼ E 2c/1d
 - ▼ I 2d = 5+d, not suitable for 2N or 3c
 - 2M presumed to be 4, opener will raise with 54, could be 3 with no attractive call
 - ▼ II 2M = Any 4432 or 4441 (or 6d 5M – rare), often a weak NT
 - ▼ Natural bidding follows
 - 1d 2c 2H 2S could be artificial
 - Raising the major shows 4
 - Bidding 3d shows 4
 - ▼ III 2N = Suitable 12–14 or 18–19, could have 4M – rare
 - Responder's 3M is natural
 - IV 3c = 3+c, usually 4+, could be 4333 with an unstopped suit
 - V 3d = good suit, good hand
 - VI 3M = SPL
 - VII 3N = soft 18–19, denies 5d
 - F 3c/1d = Natural invite
 - G 3m = PRE (some would call it mixed), opener bids 3N with 18–19
- ▼ H 1d 2H = artificial balanced invite by UPH (Raptor – LR strength – by PH)
 - ▼ I 2S -> 2N
 - Now opener can sign off or show 5=6
 - II 2N = signoff
 - III 3m = GF (slow = signoff)
 - IV 3M = shortness (slow = 65)
 - V 3N = signoff
- ▼ I Other two level JS = weak by UPH
 - I Something between QJxxxx and KQxxxx
 - II Opener's rebid and new suits are NF constructive
 - ▼ III Opener's 2N is F1

- 3m = natural, NF
- 3 own suit = not good suit, no shortness
- 3x = shortness
- 3N = Good suit, KQxxxx
- ▼ IV Opener's raise is INV
 - Opener's raise to 3d = INV, rare
- ▼ J 2N = natural GF
 - I Now 3 of a higher suit = shortness (including 3d)
 - II 1c 2N 4d = 4522 18-19 HCP
 - K 3X (double jump shift) = PRE by UPH
 - L 3N = 16-17 4333, usually 4om
- ▼ M PH responses
 - ▼ I No comp
 - New minor forcing after 1M response
 - JS in the other minor is fit showing, 5+ om, 4+m, LR values, all cards in the two suits
 - JS to 2M is Raptor, 4M, 5+m, LR values
 - 2N is natural and invitational
 - 3M is fit showing, 5M, 5+m, all high cards in the two suits, intended as forcing
 - ▼ II Comp
 - Usual system over 1d and 1H overcalls
 - Raptor jumps to 2M when they double or overcall, 4M, 5+m, LR values
- ▼ 4 Reverses -- Usually 17+ HCP if balanced
 - ▼ A 1m 1M
2R
 - ▼ I 2M = 5+, ambiguous strength
 - 3M = Intended as forcing, but weaker than 4M or 4OM or 4th suit followed by 4OM. Responder can pass if he was "just kidding" about his response.
 - 4M = very strong, 3 card support, singleton in 4th suit
 - 4om = void, 3 card support
 - 4th suit = GF, not short
 - ▼ 3R is GF and does not promise 65
 - Because it could be 64 with shortness in the 4th suit
 - II 4th suit waiting, except over 1c 1S 2H where 2N is negative/waiting
 - III 2N natural except waiting over 1c 1S 2H
 - IV 3m = GF with support
- ▼ 5 Competitive
 - ▼ A They double
 - I Single raise = standard, less than LR

- II 2N = PRE raise
- III 3m = LR
- IV JS in om = forcing raise
- V No mixed raise available (this might be the only such auction)
- VI Jump to 2M = weak by an UPH, Raptor by a PH (LR values)
- ▼ B They overcall
 - ▼ I Now we can show shortness only in their suit
 - If they've bid two suits our cues show stoppers or control
 - II Jump raise = mixed
 - III 1m (1S) 3S = Transfer to 3N
 - ▼ IV 1m (2m Majors)
 - ▼ Dbl Dbl = Pen
 - Opener can double with three trump and a good defensive hand
 - P Dbl = t/o
 - 2om = natural NF
 - 2M = Stopper, INV+, we can stop in 2N or 3m
 - 2N = Natural INV, both majors stopped
 - 3m = natural
 - 3om = GF
 - 3M = SPL
 - 3N = Balanced GF, both majors stopped
 - ▼ V 1x 1y 1z P
 - 1N -- system off
 - 2y = INV+, not GF
 - ▼ VI Mitchell Stayman
 - 1m (1N) 2m = Both majors, competitive values so not forcing
 - ▼ VII 1c (1d)
 - ▼ Dbl = 4+ H, 1H = 4+ S
 - Opener accepts the transfer with three trump and up to 16 HCP, or four trump and a hands that's become a sub-minimum after the overcall.
 - Opener's cue is 17+, 3 trump, or any GF with no other clear call
 - When responder has transferred and opener shows interest without bidding the suit, responder's 4M - 1 is a retransfer
 - ▼ 1S = NT
 - Now 2c = maximum single raise with stopper
 - 1NT = natural and positional
 - 2c = Less than limit raise
 - ▼ 2d = Exactly 4=4 in the majors, 9+ HCP (review)
 - Opener's 3d is a slam-suitable GF

- ▼ 2H = Natural, weak by an UPH, Raptor by a PH
 - 4H, 5+c, mixed raise values
 - 2S = LR +
 - 2N = Natural GF
 - 3c = mixed raise
 - 3M = Natural preempt
 - 3N = natural, to play, wants to declare
- ▼ VIII 1m (1H)
 - ▼ Dbl = 4 or 5 S
 - 1S = 3S, up to 16 HCP
 - 1N = 12-14, normally doubleton spade, occasionally stiff
 - 2m = unchanged
 - ▼ 2H = GF or 17-18 w/3S
 - 2S = to play opposite 17-18, other bids GF
 - ▼ 1S = NT
 - Now 2om = natural, less than INVme
 - 1NT = Also NT
 - 2m = Less than LR
 - 2om = natural, F1, INV+
 - ▼ 2H = 6+S, 6+ HCP
 - 2S = NF
 - ▼ 2N = F1 – Review responses
 - ▼ 3c = 6-8 HCP or 12+ (only non-GF)
 - 3S = Intended as s/o, other bids GF
 - 3d = 9-11, not great suit
 - 3H = 9-11, good suit, can play opposite small singleton
 - 3S = 9-11, not great suit, Hxx of opener's minor
 - 3N = 9-11, good suit, H stopper
 - 4m = Natural, 64
 - 4H = transfer to 4S, 7-card suit, denies short H
 - 4S = short H, 7-card suit
 - 3m = NF, constructive (say 15 HCP)
 - 3c (m = d) = F1, constructive – responder can attempt to sign off in 3d or 3M
 - 3d (m = c) = GF
 - 3H = GF
 - 3S = INV
 - 3N = no interest in spades
 - 4H = SPL

- 4S = To play
- 2S = Cue, presumably LR+
- 2N = Natural GF
- 3m = mixed
- 3N = 16–17, positional stoppers
- 1d (1H) 3c = natural, weak by UPH, fit showing by PH
- ▼ IX Over any one level transfer opener's cue is either GF or 17–18 with 3 trump.
 - Responder's 2M is a signoff opposite the 17–18 hand.

▼ E Major suit openings

▼ 1 1H 1S

▼ A 1N

- I 2 or 3S, never a stiff honor

▼ II 2WCB by UPH

- All jumps are pure game forces
- III 2c->2d by PH, 3c = INV, 2c.3c = s/o

▼ B 2H 2N = F1

- I 3S = Natural, GF

▼ C 2S -- Opener can raise freely with three spades

▼ I 2N = F1 (review)

▼ 3c = 3 trump min

▼ 3d asks for shortness

- bal, low (c), high (d)
- Now 3S = s/o
- 3H = 4=2 in the majors, NF
- 3S = signoff

▼ 3d = 3 trump, unbal, max

- 3H asks for shortness
- 3S does not exist
- 3H = 3S, 6H, F1
- 3S = 5422 min
- 3N = 3 trump, bal, max
- 4X = SPL
- II 3x = game try, 5S
- III 3H = F1
- IV 4m = SPL

▼ D 2N

▼ I 3c -> 3d

- Pass -- possible
- 3M shows 5S + 5 in corresponding minor (review this before playing)
- Higher bids, starting with 3N, are natural with 4 spades and longer diamonds

▼ II 3d -> 3H

- Could be honor doubleton, esp. if followed by 3S or 3N.

▼ III 3h -> 3S

- Pass = possible
- 3N = choice of games, opener corrects with three spades
- IV 3S = 4S and longer clubs

- V 3N = to play
- VI 4m = Self-SPL
- ▼ 2 1M 1N
 - A Semi-forcing. Opener passes only with a weak or 4-card major
- ▼ B Bart
 - ▼ I 1H 1N
 - ▼ 2c = 2+c, any 5332, 4=5=2=2
 - ▼ 2d = weak preference to H or various good hands
 - ▼ 2H = any 12-16, could be poor 17
 - 2S = 55 minors, LR values
 - 2N = 10-12 HCP, 4C
 - 3c = 5+c, LR
 - 3d = 6+ d, stronger than a direct 3d, minimum something like KQJxxx and a side Kx or AQJxxx and out (on a hook and a break to bring the suit in opposite xx)
 - 3H 5+ clubs, Hx hearts
 - 2S = 3514 17-18
 - 2N = 2524 17-18
 - 3c = good 55, say AKxxx AKQxx
 - 3d = 1=5=3=4 or 0=5=4=4
 - 2H = 9-10, 2H
 - 2S = 55 minors, less than limit values
 - 2N = 10-12 bal, < 4 C
 - 3c = 5+c, less than LR
 - 3d = weakest hand with d (6+d)
 - 3H = 3 card LR
 - ▼ 2d = 4+ unless 4=5=3=1, responder presumes 4
 - 2S = good d raise
- ▼ II 1S 1N
 - ▼ 2c = 2+c, any 5332
 - ▼ 2d = 5+H
 - ▼ 2H = any minimum range hand, at least one heart
 - 2S = 2S, 5H, 9-10 HCP
 - 2N = 10-11 (poor 12) w/5H
 - 3c = 5H & 5c, Constructive
 - 3H = not quite good enough for an initial 3H invite over 1S
 - ▼ 2S = zero or 1 heart, still minimum
 - 3c = correcting, preference (opener has shown 4c)
 - 3d = natural, NF, typically 55

- 3H = F1, clubs LR
- ▼ 2H = weak preference (0-8, 2+S) or various good hands
 - ▼ 2S = most 12-17
 - 2N = 10-12 HCP, 4c, could be an awkward 1=3=5=4 9 HCP
 - 3c = LR values 5+c
 - 3d = Invitational d hand (6+ d), minimum something like KQJxxx and a side Kx or AQJxxx and out (on a hook and a break to bring the suit in opposite xx).
 - 3H = 55 minors, LR values, enough to force to the four level, opener places the contract
 - 3S = Hx S, 5+c, LR values
 - Others: What opener would bid over a weak preference
 - 2S = 9-10, 2S
 - 2N = 10-12 bal, < 4 C, < 5H
 - 3c = 5+c, less than LR values
 - 3d = weakest hand with d (6+d)
 - 3H = 5H, 5c, LR values
 - 3S = 3 card LR
- ▼ 2d = 4+
 - ▼ 2H = Weak with 2 (or 3) S or several other hands
 - ▼ 2S - would pass a weak preference, 12-16 or poor 17
 - 2N = natural, 4d
 - 3c = c INV
 - 3d = LR
 - 3H = H signoff
 - 2N = natural, typically 2=5=4=2
 - 3c = Artificial F1, responder bids naturally
 - 3d 55, extras, not strong enough for initial JS
 - 3H = F1, natural, 5341, 5350, maybe 6340
 - 3S = 6S, 4d, extras, NF
 - 2S = 9-10 with 2S
 - 3c = signoff
 - 3d = courtesy raise, less than LR
 - 3H = H & d
- ▼ C 1M 1N 2x 2N
 - I 3y = GF
- ▼ D 1M 1N 4m or 1H 1N 3S or 1S 1N 4H
 - I Void, usually 7330
- ▼ E 1M 1N 2N

- I 4 suit transfers
 - ▼ II 3S shows clubs -- could be a signoff
 - Opener's 3N = Not a good hand for a club slam
 - ▼ F 1H 1N -- could contain 4S, either doesn't want to play 2S opposite xxx or wants to be able to show six card minor
 - ▼ I 2S = F1, 17+ HCP if balanced
 - ▼ 2N = F1, "reverse lebensohl"
 - 3H = NF
 - Others GF
 - 3m F
 - 3H = NF
 - 3S = F
 - ▼ II 3m = Natural GF
 - 3H = Waiting, 2+ H
 - 3S = Waiting, 1 H
 - ▼ 4H = 3 card LR, NF
 - Responder can start with 3H with strong slam interest
 - ▼ III 3H
 - ▼ 3S = Punt
 - 4m = 3 cards, re-punt
 - 4c = art. slam try
 - 4d = natural
- ▼ G 1S 1N
 - ▼ I 2H
 - ▼ 2N
 - 3m = short in om, could be forcing 5-5 or 6-4
 - 3H = 55 NF
 - 3S = 64 NF
 - ▼ II 3S
 - 4c = art. slam try (review)
 - 4d, 4H = natural
- ▼ 3 With 4S and 3H respond 1NT to 1H
 - A Because we raise freely with 3S
- ▼ 4 Jump shift in OM
 - ▼ A 1H (P) 2S = weak by UPH
 - I Something between QJxxxx and KQxxxx
 - B 1S (P) 3H = natural and invitational
- ▼ 5 2/1 = always GF
 - ▼ A 1M 2m

- ▼ I 1S 2m 2H
 - ▼ 2S = Most hands with 3S
 - ▼ Opener's bids show his shape and do not show extras
 - So 3S shows 6S
 - 4H = Picture bid, 9 cards, no side A, K, or singleton
- ▼ II 2M = does not promise 6, could have extras
 - 2N often contains a singleton M
 - 4M = Picture bid, 9 cards, no side A K or singleton
- III 2N = Suitable 12-14 or 18+
- IV Jump shift = good 55
- ▼ V Jump reverse or higher = splinter
 - 1H 2m 3S 4om = Heart slam try
 - 1S 2d 4c 4H = Spade slam try
- VI 3N = Soft 18ish, doubleton m or possibly xxx
- VII 3M = good suit and good hand, would be worth a jump rebid over a forcing NT
- VIII 3m = 4 card support, could be a minimum
- B Prefer 2/1 to 3c forcing raise with a good 5 card side suit (KJxxx or better)
- 6 2N = Natural, 12-15 or 18+, could hold xxx in support
- ▼ 7 Raises
 - ▼ A 2M (7.5 to 10)
 - I 2N = F1
 - II 3M = INV
 - III New suit = nominally long suit game try
 - IV Jump to 4x = natural slam try
 - ▼ B 3c = FR by UPH - MSB6
 - ▼ I 3d = all minimums
 - ▼ 3H asks
 - ▼ 3S balanced
 - 3N = forward going, no C control
 - LMH with zoom for good min when necessary
 - 3S,3N,4C = strong SPL 1mh (15+HCP)
 - 4M to play
 - II 3h = shortness somewhere, extras (good 14+ HCP)
 - III 3S = 5422 Strong NT or any strong balanced better
 - IV 3N = Good min, 6+, no shortness, decent controls, e.g., Kxxxxx AQx Ax xx
 - V 4X = Natural
 - VI 4M = I should not have opened

- ▼ VII If they double 3C we gain 2 steps.
 - P = min (and XX asks), XX = shortness somewhere
- ▼ VIII If they overcall at the three level (including 3S)
 - Dbl. = Pen
 - ▼ P = Any hand with no control in their suit, or a control with a minimum. Denies shortness in their suit.
 - But could be better than a weak NT and no control in their suit.
 - Responder's double = optional, opener call pan with 3+ trump, say
 - Suit = Cue, naturalish, short in their suit, extras
 - 3M (4M if necessary) = stiff in their suit, no extras
 - 3N = A or K in their suit, extras
 - Cue = void
- ▼ IX If they overcall at the four level, below 4 of our suit (so 3N not available)
 - Dbl. = shortness, extras
 - 4M = shortness, min
 - ▼ P = not short in their suit, no extras or no convenient cue. Could be control with no extras.
 - Responder's double shows a willingness to defend
 - New suit = No shortness, extras, A or K in their suit
- ▼ C 3d = LR by UPH
 - ▼ I 3OM = MAB, asking for shortness
 - None, low, middle, high
 - II 3N = General slam try "moving along" weather
 - III 4x = natural slam try
- ▼ D 3M = Mixed (7-9 support points, 4 trump), MAB nlmh
 - I Max is an A, a K, and a singleton
- ▼ E 3M+1 = weak SPL (~ 9-11 HCP)
 - I Relay asks, with step responses
- ▼ F SPL = ~ 12-14 HCP (15+ starts with 3c)
 - I 1H 3N = Spade SPL
 - II 1S 4H = SPL
- ▼ 8 Passed hand bidding
 - ▼ A Reverse Drury (off in comp)
 - I Minimum = 9 with 3 trump, or two aces not 4333.
 - ▼ B 2d = natural, 5+
 - I 2M = NF
 - II 2N = F1, not a stiff d
 - C 2N shows a club fit
 - D 3C shows a club invite

- E Other jumps are fit-showing
- F 3M = five card CR
- ▼ 9 Competitive bidding
 - ▼ A They double
 - ▼ I 4ST starting with 1NT (also when we overcall 1M and they double, including support doubles)
 - Transfer to 2M shows a good 7 to a poor 10
 - Opener's double t the 2-level shows support for responder's "suit"
 - II 3M-1 Mixed raise
 - III Other jumps are fit-showing
 - ▼ B They Overcall directly (review)
 - I 1NT / 1S = 8-11 HCP
 - II 2NT = Natural GF, whether or not it's a jump
 - III Q = LR or non-slamish GF
 - IV 3m = good suit, 6 to the three honors with the ace and out by UPH
 - V 3M = Mixed raise
 - VI 3NT = FR, slamish (could be control-rich minimum GF)
 - ▼ VII They bid 2N, unusual (and similar when we open 1m)
 - ▼ Unusual over Unusual (also over specific suit Michaels')
 - ▼ Cheaper Q shows the 4th suit, INV+
 - Opener's bid of the fourth suit promises at least Hx in support.
 - More expensive Q show's opener's suit, exactly a LR or a poor forcing raise
 - 4th suit = NF, competitive
 - 3N = GF raise, slamish but could be a control-rich minimum
 - Pass then double is for takeout and shows in principle exactly 4OM (review)
 - Dbl followed by 3OM is natural and forcing without a strong suit -- opener needs three to raise.
 - ▼ C Fourth hand intervenes
 - ▼ I 1M (P) 2M
 - ▼ (2N)
 - Dbl = balanced extras, pass followed by double is for penalties
 - ▼ (2x, 3x)
 - Opener's double is for penalties unless their suit is directly below ours
 - Responder's double shows convertible values, 2 or 3 trump
 - II Penalty doubles after our Drury

▼ F Strong Openings

▼ 1 2C openings

▼ A 2d automatic

▼ I 2H = Kokish relay, forces 2S

- 2N = GF balanced

▼ 3c = H 1 suiter

▼ 3d = neg or waiting

- 3H = NF
- 3d = H & d
- 3H = H & c
- 3S = H & S
- 3N = Solid H, 3 side stoppers

▼ II 2S = Natural

▼ 3c = neg or waiting

▼ 3d, 3H = Nat

- 3S = NF
 - 3S = NF
 - III 2N = 22-24
 - IV 3m = natural, 10+ tricks
 - V 3M = 4M, longer diamonds
 - VI 3N = Solid diamonds with side stoppers, stronger than a 3N opening
- ##### ▼ VII 2C openings are forcing to game unless:
- Opener rebids 2NT over 2d
 - 2c 2d
2S 3c
3S
 - 2c 2d
2S 3c
3 red 3S
- ##### ▼ 2c 2d 2H 2S 3c = H
- ##### ▼ 3d = neg or waiting
- 3H = NF

▼ B If they overcall

- I Pass = double negative, NF at the 3 level or higher
- II Dbl = cards, GF
- III Responder's suit bids show KJ8xx or better if five, could be less with six

▼ 2 2N openings, also 2c followed by 2N

- A 3c = Simple Stayman

- ▼ B 3d
 - ▼ I 3h – normal
 - ▼ 3s = 5M + another 5 card suit, either no slam interest or slam forcing with 5-5 or longer in the majors.
 - ▼ 3N asks
 - 4m = 5m plus a 5-card major, a poor hand
 - 4H = 55 majors, signoff
 - 4S = 55 majors, forcing
 - ▼ II 3S = pre-accept of H
 - ▼ 3N = 5S & 5m
 - ▼ 4m = I would like to play in m if that's your second suit
 - 4H = My second suit is the other minor
 - 4c = H slam try
 - 4d = H retransfer
 - 4H = undefined
 - 4S = 55 majors, forcing
 - ▼ C 3H
 - ▼ I 3S = normal
 - 4h = 55 slam invite
 - II 3N = super-accept with side H suit, 4H = retransfer
 - III 4m = super-accept with side m, 4H = retransfer
 - ▼ D 3H 3S 4m = Slam interest opposite a good fit with good controls
 - I 4H over 4D = punt
 - ▼ E 3S forces 3N
 - ▼ I 4m = om
 - 4om+2 = 1430 RKCB
 - II 4H = both minors, longer clubs
 - III 4S = both minors, longer diamonds
 - IV 4N = 55 minors, NF
 - V 5c = both minors, slam forcing
- 3 3N = solid minor, 3 side stoppers

▼ G Preemptive Openings

▼ 1 2d 2H 2S = Weak 2s

▼ A 2NT by an UPH requests a side stopper

- I On after overcall

▼ B 2NT by a PH requests a side A or K

- I On in comp

- C Jump shift to 3M is invitational

▼ D McCabe over doubles

▼ I New suit = lead directing raise

▼ Decent 6 card suit in 1st, 2nd, and 4th – can vary tactically

▼ Vul usually 2 of the top 3 or 3 of the top 5

- KQTxxx and out is not enough at unfavorable or 2nd seat all vul
- Equal white KJ98xx or better
- Fav QJ9xxx or better
- Could be 5 with 100 honors 1st & 3rd favorable
- II 2NT by an UPH requests 3c -- responder has a suit of his own
- III 2NT by a PH is a game try, requesting a side A or K
- IV XX shows a good hand – see below

▼ E 4c = Special Key Card, also over 3x

- I 0, 1 w/o, 1 with, 2 w/o, 2 with

- 2 3-level openings show a 7-card suit or 6-4, even at favorable

- 3 Dbl by a preemptor who was raised says "I want to bid again" (in case responder has a penalty double)

▼ 4 Redouble by the preemptor's partner requires the preemptor to double an immediate suit bid by his RHO when holding a singleton or void.

- A It does not create a forcing pass if the next player passes or bids NT instead of bidding a suit.

▼ H Doubles -- The Rules

- ▼ 1 All doubles of part-scores are for takeout or card-showing, with these exceptions, where the double is for penalties:
 - ▼ A When a pass would be forcing.
 - ▼ I But if they have bid and raised then a double of a part-score shows a good one-suiter
 - e.g., 1H (1S) 2c (2S) Dbl = GF heart one-suiter
 - ▼ B After 1 any-(X)-XX, or we double their artificial two-suited bid.
 - ▼ I Exception to the exception: 1 any (X) XX (jump) dbl = t/o
 - P = NF
 - C The doubler traps in a classic negative double situation. For example 1C (1H) P (2H) P (P) X or 1D (1S) P (P) X (2C) X. This latter shows penalty double of spades and a cooperative double of clubs; opener is expected to pull with only 2 clubs.
 - D The doubler traps over a 1-level response, e.g., (1m) P (1M) P (1N) P (P) Dbl
 - E 1x P 1N P
P Dbl
 - F We failed to make a takeout double of the same suit the last round and we have gained no new information. New information is:
 - a) Partner acted with a 1 suited or 3 suited bid.
 - b) The opponents have found a fit.
 - G Partner has opened with a preempt, except 2M (any) Dbl = game try
 - H Partner has overcalled with a preempt, except if the opponents have bid and raised to the three level, double below three of our suit is a game try.
- ▼ I Double over the overcaller after we have bid (opened/overcalled) and raised a major.
 - I Not when their suit is directly below ours – double = game try
 - II Not when they're raised, e.g., 1S (2d) 2S (3d). Then double by opener is maximal, by responder is convertible values, rare, denies a singleton.
- J 1D-(P)-1N-(2C/3C)-P-(P)-X
- K We double after a delayed entry into the auction when Opener has rebid in NT. For example,
1D-(P)-1S-(P)-1N-(2H)-X. Note that a double of 2D instead of 2C in the given auction would not be penalty. There are NEVER penalty doubles if the opponent tries to play in partner's suit. Double shows a good hand and asks partner to look at his suit.
- ▼ L Partner has made a 2 suited bid, such as Michaels, and his suits are known.
 - I A takeout double is not considered a 2 suited bid.
- ▼ M We double a natural NT bid where it's 2 against 1, or 2 against 2 and the contract is 2+NT. If 1 against 1, double is takeout of a minor, so 1D-(1N)-P-(P)-X is takeout of clubs, and 1H-(3N)-P-(P)-X is takeout of either minor. If 2 against 2, a double of 1NT is responsive or support. So, (1D)-1H-(1N)-X is

responsive, typically 5–2 in the majors, and 1C–(1D)–1S–(1N)–X is support.

In other words, doubles of specifically 1NT are for penalties when we have both bid but only one opponent has bid. Doubles of 2NT are for penalties if we have both bid.

- I 1m (1N) P (P) Dbl shows the majors. Also 1m (P) P (1N) Dbl.
- ▼ II 1M (1N) P (P) Dbl shows the other Major
 - AKA t/o of either minor
- N After we bid Stayman and they overcall at the 2 or 4 level.
- ▼ O The opponent's bid is artificial.
 - I This includes bids where they may or may not have hit their partner's suit
- ▼ P Partner has already made a takeout double. That covers cases like (1X) Dbl (1M) Dbl.
 - I But note that a double of 1d or 2m is still t/o, and double is responsive if responder raises.
- ▼ II (1X) P (1N or P) Dbl
 - (2Y) Dbl = "Cards". Penalty double of X, at least doubleton in Y, usually 5332
 - (2X) Dbl = t/o
 - 2N = Natural
- ▼ III 1S P P Dbl
P 2H P P
2S Dbl
 - Values, partner needs three spades to pass
- ▼ Q Doubles of balancing calls (after we both have bid) are for penalties over the bidder and card showing under him (say Hxx in trump.)
 - ▼ I Special cases
 - 1N P 2D P
2H P P 2S
P P Dbl = Takeout
 - When we've opened 1N and responder has bid doubles at the 3–level are for penalties.
- R After we've already doubled for penalties, except when we've doubled a weak NT
- 2 Doubles that are more specifically defined always take precedence, for instance Negative, Responsive, Maximal, Snapdragon, Support, etc.
- ▼ 3 Specific auctions:
 - ▼ A (1M) P (1N) P (P) X (2m) Dbl = Pen
 - I Because we've already doubled for penalties

▼ I Slam bidding

▼ 1 Blackwood rules

- A Kickback jumps into an unbid suit when we've agreed a suit or after a transfer to a minor

▼ B Constructive auctions at the 4 level

▼ I Major is trump

▼ 4N Blackwood unless

- 2 cues
- 1 cue, signoff, 4N
- (Last train is a cue bid.)

▼ II Minor is trump

▼ 4N DI if

- One of us has cued and the last bid was 4d or higher

▼ C Constructive auctions at the 3 level

- I If our last bid was 3M showing a long strong suit then 4N is KC for that major
- II If our last bid was 3m then 4N is natural

▼ D Competitive

▼ I (3X) 4m (P) 4N

- Natural

▼ II (3X) 4M (P) 4N

- RKCB

▼ III 1X (4M) 4N

- always takeout

▼ IV 1M (4m) 4N

- RKCB

▼ V 1m (4om) 4N = Nat

- we've bid only one minor

▼ VI 1m (1M) X (3M) 4N

- RKCB

▼ VII (3X) X (P) 4X (P) 4N

- RKCB (also covered under "they open")

▼ E Straight Blackwood auctions (0, 1, 2...)

- I 3X p 4N
- II 4N opening
- III 1x (P) 4N

▼ 2 Non-serious 3N

▼ A 3N is a mild slam try when all of the following conditions apply

- I We've found an 8-card major suit fit

- ▼ II The last bid was 3M
 - e.g., after 1d 2c 2H 3H
- ▼ If our Major is Spades, 3N is not non-serious over 3H.
 - Tends to be natural
 - 1S 2c 2d 2S 3H 3N = Natural – the last bid was not 3S
- III The opponents have never bid a suit (they may have doubled)
- IV We have never bid NT naturally – a shape-showing 2N does not count as natural
- V We have never bid a forcing 1NT
- VI Our hands are not narrowly limited
- ▼ VII The 3N bidder could hold a slam try
 - e.g. 1S 2S 3H 3N = Natural, NF
- ▼ VIII Partner is not narrowly limited (confined to a king or less)
 - If he is then 3N is just a general slam try
- ▼ B "Non-serious ST" means
 - I Forcing
 - II Not regressive
 - III Could cooperate, but cannot make a slam try of my own
- ▼ C Serious means
 - I I can make slam opposite the right minimum.
 - II Usually this is a King or so more than already shown.
- ▼ D When 3S would be natural over 3H then 3N is non-serious
 - I e.g., 1S 2H 3H 3N or 1S 2H 3H
- E On here: 1S 2c 2d 3S
- ▼ F Not relevant in conventional auctions:
 - ▼ I 1H 3d! 3S 3N
 - 3S was MAB, so 3N shows no shortness (none, LMH)
- ▼ 3 Cue bidding
 - A We cue first and second round controls indiscriminately, except that the first cue is rarely a singleton. Rather it's semi-natural, usually looking for fitting honors.
 - ▼ B When one partner has denied a control his partner's cues promise the missing control and might be last train, not promising a control in the suit bid. For instance:
 - ▼ I 1S 2H 2S 3S 3N (non-serious) 4d (no club control) 4H
 - Opener has shown he has no substantial extras and responder is interested anyway. Since responder has denied a club control opener must show one if he has it, in case that's all responder needs. By using 4H as last train opener can show the control without forcing to the five level.
 - ▼ C They double our control-showing cue

- I Return to suit = no control, no extras
- II P = no control but extras
- III XX = control, not enough extras to cue
- IV New Suit Cue = control in the doubled suit, extras

▼ 4 Misc

- A 1M 2x 3M 4x is natural, other suit bids are cues.
- B When we pull 3N to 4m, 4N by either player is natural

▼ J We overcall

▼ 1 1M

- A Jump Q = Mixed raise, roughly 7–9 support points, does not promise a defensive trick
- B Jump to 2NT shows 4 card LR+ when redouble available
- ▼ C When they raise to the 2-level
 - I Advancer's jump to one under our major is mixed
 - II If no jump is available then advancer's jump to 3M is mixed
- D When advancer has two cues below three of our suit then the higher cue is mixed
- ▼ E 4ST starting with 1N when they double, including support doubles
 - I XX = 10+, doubleton M
 - II Pass followed by X is 10+, stiff in partner's suit, at least 3 cards in the opponents' suit

▼ 2 1 level

- A (1x) 1Y (P) 1N
(P) 2x = Extra values, often "2.5 Y" rebid
- 3 Advancer's cue does not promise tolerance

▼ 4 (1S) 2H (P) 2S

- A Usually Hx of hearts. A 3-card LR would tend to bid game.

▼ 5 2N by an overcaller is usually natural, not 6–4

- A We can overcall with good hands!

▼ 6 NT overcalls (review)

▼ A We overcall 1N directly

- I FOC, xfer into their M = shortness, INV
- ▼ II If advancer bids we ignore opener's bid except double = responsive for 2 suits
 - ▼ Over 1c 1N 2c (natural)
 - Front of card, X is Stayman
- ▼ III If they double
 - DONT, Redouble for one-suited runout

▼ B We overcall 1N in the sandwich position

▼ I 1m P 1X 1N

- 2 of responder's suit is Stayman
- Other 2 level bids are natural
- 2N = nat
- 3x = INV

▼ II 1H P 1S 1N

- 2m = to play
- 2H = xfer

- 2S = cue
- 2N = nat
- 3x = INV
- ▼ C We overcall 1N in bal
 - ▼ I FOC with range ask Stayman
 - 2S = Invite assuming 11-12 HCP, normally accept with 12
 - 11-12 responds normal at the two-level
 - 13-14 bids 2N, now 3c asks
 - 15+ responds at the 3-level
 - II 1m P P 1N = 11-15
 - III 1M P P 1N = 11-16 (occ. 17 over S)
- D Bal 2N = 19+ to 21
- ▼ E We overcall 2N
 - ▼ I (2m) 2N (P) - 4ST, 3c = Stayman
 - 3C = Stayman with Smolen
 - 3R = XFR, could be a signoff
 - 3S = om
 - ▼ 4x = Gerber & Texas
 - Texas is a slam try as usual
 - ▼ II (2M) 2N (P) - 4ST, Cue = Stayman unbalanced
 - ▼ 3c forces 3d
 - 3OM is a signoff
 - 3M = Balanced Stayman
 - 4c = both minors
 - 3N = Diamonds, short in their major
 - ▼ 3d = OM, invite or better
 - ▼ When M = H
 - ▼ 3H = Accept, doubleton spade, not well stopped in hearts
 - 3S = No strong opinion
 - 3S = Reject
 - 3N = Accept, 2S, well stopped for hearts
 - ▼ M = S
 - 3H = reject
 - 3S = accept, 2H, not well stopped in spades
 - 3N = accept, 2H, spades well stopped
 - 3OM = clubs
 - Cue = Stayman with shortness in their suit
 - ▼ 4x = Gerber & Texas
 - Texas is a slam try as usual

- Texas into their suit is a 4441 slam try
- ▼ F 3N
 - I 4ST, 4♣ shows ♦ except over 3♣
 - ▼ II Q is cue, except over 3D when 4C is a cue.
 - Likely 4441, could be 5431 with a weak 5 card suit or one inconvenient to show.
 - G Smolen is always on, except when they've doubled Stayman
- ▼ 7 Jump overcalls
 - A Intermediate at Unfavorable, direct and in sandwich
- ▼ 8 They open 1N
 - ▼ A Strong (includes 16) and by PH
 - ▼ I Multi-Landy with Rodwell 2N
 - ▼ Double =
 - 4M, 5+m
 - Diamonds
 - Strongish Major 1-suiter
 - ▼ 2c = Both majors
 - 2d asks for longer major, F
 - ▼ 2d = H or S
 - ▼ Rodwell 2N asking
 - 3c = minimum
 - 3d = medium, H
 - 3H = medium, S
 - 3S = max, H
 - 3N = max, S
 - ▼ 2M = 5M, 4+m
 - 2N asks with values
 - 3c = p/c
 - 3d = game try in M
 - 3M = primarily preemptive
 - ▼ II If they double 2c a XX asks partner to bid his suit
 - Other bids are unchanged
 - ▼ III If they redouble a pass asks for doubler's minor and bids are natural
 - Other bids are unchanged
 - IV Over 2M, as over our Michaels so 3c is pass or correct etc.
 - ▼ B Weak (does not contain 16) by UPH
 - ▼ I Direct and Balancing
 - ▼ Double = pen, 15+ (less over 10-12)
 - They cannot play 2m or 2H undoubled

- Third double is for penalties
- 2c = Punt, weak with no suit or weak club one-suiter, NF
- 2N = GF 2-suiter, no special followups since it's never come up
- 3X = Natural, GF
- Landy and transfers, D&B
- ▼ 2S = 4S + longer m, 2N = 4H + longer m
 - 2N (if available) = inv. in m
 - 3C = pass or correct
 - 3D = INV in M
 - 3OM = Natural, NF
- ▼ Dbl forcing to 2H in comp (they cannot play 2H undoubled)
 - ▼ First subsequent double of a natural bid by either hand is for takeout
 - XXX (third double for pen)
- II Dbl of Stayman by an unpassed hand = cards, (15+, could be less over 10-12)
- III Dbl of xfer = lead directing
- C If they double or XX we use parking lot XX and parking lot pass
- 9 New suit forcing over 2-level overcalls only when third hand passes
- 10 3m Dbl P 4N is natural
- ▼ 11 (3M) X (P)
 - ▼ A 4M = OM, two places to play
 - I 4N = RKCB for OM
 - B 4N = both minors
- ▼ 12 vs Strong clubs
 - ▼ A They open a strong 1C
 - ▼ I CRASH, also over a 1d response (Dbl, 1N, 2c)
 - ▼ Normally 5-4 or longer
 - Advancer will preempt to the 3 level with a guarantee of an 8 card sit
 - Jumps to 2X are normally good three card suits
 - ▼ B They open a strong 2C
 - I Mathe – Dbl Majors, NT minors (but natural over a 2d response)
- ▼ 13 Versus Precision 1d or omnibus clubs when most or all minimum balanced hands are opened 1c (Polish / Swedish / Italian), not if they open 1c only with 4=4=3=2
 - A Cue = natural
 - B 2d = Natural preempt
 - C 2H = Majors
 - D 3d = Strong majors
 - ▼ E (1d) P (1M)

- I Pretend they have diamonds
- ▼ 14 We bid Michaels' – any strength
 - ▼ A (1m) 2m
 - I 2M to play
 - II 2om, 3om to play
 - ▼ III 2N = INV
 - 3c = 55 min
 - 3d = 55 medium (starts with minimum opening bid)
 - 3M = 6M, forcing
 - 3N = 55, GF, was planning to bid over a signoff
 - ▼ IV 3m = sound invite
 - Overcaller should bid game with a bad medium hand
 - V 3M Primarily preemptive
 - ▼ VI They double
 - Pass by an UPH is to play except when they open 1d in an omnibus club system
 - XX shows no preference if pass was to play, or strength if pass showed no preference
 - If I show no preference and then correct I don't want the lead of the suit I correct to
 - ▼ B (1M) 2M
 - I Min bid in OM = to play
 - ▼ II 2N = values, minor suit oriented
 - 3m = minimum
 - 3M, 3OM = corresponding minor, maximum, 5-5
 - 4m = 6 card suit
 - 4M = 6 card suit, with corresponding minor if their M is H
 - III 3c = pass or correct
 - ▼ IV 3d = INV in OM
 - Over a 1S opener the Michaels' bidder has no room to show 3 ranges -- tough!
 - V 3OM (jump to 3S) = Primarily preemptive
 - VI 4d invites the Michaels' bidder back in if the opponents bid again. It doesn't create a force.
 - ▼ VII They double
 - XX = good hand, not suitable for 2N
 - 2N, 3M unchanged
 - ▼ P = bid your minor
 - Pass shows no preference when suits are known
 - 3m = to play

- ▼ 15 (1x) P (1N) P (P)
 - A Double is for penalties
 - B 2x is natural and 2 of another suit shows that suit and a higher ranking unbid suit.
- ▼ 16 (1M) P (2M)
 - ▼ A Also over P, weak 2, P P:
 - I 2N = Minors/H, H + minor/S
 - II 3M = Bid 3N with a stopper
 - III 3S (M = H) – Natural, strong
 - IV 4m = Leaping Michaels' – OM + m, F1
- ▼ 17 They open 2d weak
 - ▼ A We double
 - ▼ I 2N = lebensohl
 - ▼ 3c
 - 3d GF, d stopper, at least one major
 - 3M = INV
 - II 3c = values
 - III 3d = both majors, no stopper
 - IV 3M = F
 - V 3N = happy
 - B 3d = Both majors, forcing only to 3M
 - C 4c = c & H (intended as forcing)
 - D 4d = c & S (forcing)
- ▼ 18 They open 2d Precision (short diamonds)
 - A Dbl = 15+ HCP
 - ▼ B 2N = tricks, normally diamonds
 - I 3c forces 3d
 - II 3d, H, INV+ xfr
- ▼ 19 They open 2M
 - ▼ A Dbl
 - ▼ I 2N asks for longer minor
 - 3d = s/o (also 3H when M=S)
 - 3M = OM + stopper, GF
 - 3S = INV when M = H
 - 3N = less direction – only one stopper
 - II 3c = Wide range
 - III 3d = Values (also 3H when M=S)
 - ▼ IV 3M = GF
 - no stopper, not 4S when M = H

- H when M = S
- V 3S = F when M = H
- VI 3N = more direction, 2+ stoppers
- ▼ B 4m = Leaping Michaels' (forcing)
 - I AKJxx AKJxx enough, even with 5 losers
 - II KQJTx KQJTx not enough
- C 4M = minors
- D 4N = minors, not as strong as 4M
- E P (2S) P P 2N = H + minor
- ▼ 20 They open 3m or raise 2m to 3m
 - ▼ A 4c = both majors
 - I 4d = slam try
 - B 4d = om + M
- ▼ 21 Sandwich overcalls (Review)
 - A Cue of responder's suit is natural
 - B Cue of opener's suit is distributional takeout
 - C 2N is shaplier takeout, normally at least 6-5
- ▼ 22 (1x) P (P) 2x
 - A Michaels'
- ▼ 23 (1S) 2H (2S)
 - A Dbl = like a cue
 - B 2N = like a responsive double
- ▼ 24 (1H) 1S (2H)
 - A Dbl = like a cue
 - B 2N = like a responsive double
- 25 1m P 1X 2m = Michaels', even if m could be short
- 26 1grape X XX P promises 3+ cards in the most expensive unbid suit
- 27 Unusual 2N typically 6-5 at unfavorable
- ▼ 28 (1M) Dbl (2M)
 - A Dbl = 4H over S
 - ▼ B 2N = Lebensold, asking for longer minor
 - I But scrambling over balancing doubles or second doubles
- ▼ 29 (1x) Dbl (P) 2x
 - A Forcing to NT or suit agreement, even by a PH. Promises a rebid.
- ▼ 30 (1x) Dbl (P) 1M (P) 3x
 - A Very strong raise of M, four card or longer support. Advancer can try to sign off in 3M with four trump and two jacks or less. With three trump he'll most often try 3NT. With good trump advancer should cue to try for slam.
- ▼ 31 Doubles of artificial raises

- A Takeout by an UPH, unless the raise is GF
- B Lead directing by a PH
- 32 If we double and bid 2m over advancer's 1N that is an escape

▼ K They overcall

- ▼ 1 We switch the meanings of an unpassed hand's minimum bids in the unbid suits on these auctions:
 - ▼ A 1c (1S)
1c (2S)
1S (2C)
1m (2om)
1m (3om) (only 3-level auction)
 - I In other words, when both majors are unbid or both red suits are unbid and we can show both unbid suits at the two or three level.
 - B That is, when both majors are unbid or both red suit are unbid and responder can bid at the three-level or lower
 - ▼ C Responder can pass if opener accepts a transfer at the two-level or makes a minimum 3-level accept over a two-level transfer.
 - I e.g. 1c (1S) 2d! (P) 3H = NF: I would have raised a 2H response to 3H
- ▼ 2 1M – Michaels' (2M = OM + unspecified minor) – (Review)
 - A 2S = xfer to clubs over 1H, competitive+
 - B 2N = xfer to clubs over 1S, competitive+, limit raise+ over 1H
 - C 3c = xfer to diamonds, competitive+
 - D 3d = constructive raise
 - E 3H = limit raise+ over 1S
 - F 3M = weak raise
 - G 3NT = Natural, doubleton M
 - H 4m, jump in OM = SPL
 - I 4M = distributional raise
- ▼ 3 Support double and redouble
 - A Optional, though pass with support is rare
 - B Through 2 of responder's suit
 - C Over 1-level response or transfer to 1M or double of 1M
 - D On over art NT 2-suited o'call
 - E Off over natural NT o'call unless they have both bid
 - F Responder's 2m is an attempted signoff
 - G Responder's 3m = NF but constructive, whether or not it's a jump
- ▼ 4 1grape dbl rdbl
 - A We cannot sell out below 2 of our suit
 - ▼ B They jump – opener's pass forcing @ 2-level
 - I X = shortness @ 2-level, but extra values @ 3-level since pass NF
- ▼ 5 Weak jump shifts over 1m openings by UPH when they overcall 1S or higher
 - A 1d (1H) 3c = natural, weak by UPH, fit showing by PH
- ▼ 6 1m (1H) Dbl (P) 2N

- A Transfers on
- 7 1m (dbl) 2M = 4M, 5m, mixed raise values (or could be GF values)

▼ **L Misc competitive agreements**

- 1 Pass is the weakest action in competition unless we are returning to our trump suit at the game level or higher
- ▼ 2 Forcing pass followed by a pull
 - A Weaker than a direct pull if we've found a fit.
 - ▼ B Less direction (more shape, fewer high cards) if we have not yet found a fit
 - I In other words, more than one place to play
- 3 All redoubles of 3NT show doubt
- 4 When opener or overcaller doubles, 2N tends to be scrambling or better minor Lebensold
- 5 Lightner doubles only when we know that they have the balance of power
- 6 1H 2c 2H 3S = INV
- ▼ 7 New suit by responder non-forcing below the four-level
 - A E.g., 1H (P) 1S (3d) P (P) 4c is forcing
- 8 When a hand that's not strictly limited bids 4m, it's forcing unless it was forced.

▼ **M Misc non-competitive agreements**

- ▼ 1 When 2N denies a four card major then partner's major suit bids show shortness, as does 3d if he's shown a club suit.
 - A If it's higher ranking than our minor and it's a new suit it's shortness.
- ▼ B Examples:
 - I 1m 2N 3M
 - II 1c 2N 3d
 - III 1m 2m
2N 3x, where x outranks m
 - IV 1d 1N 2N 3M
 - V 1d 1S
2d 2N
3M
 - VI 1H 1N
2H 2N
3S
- ▼ C Corollary:
 - I 1m 2N 4M = Natural, 65, NF
- 2 When opener has bid 2 suits and responder bids 2NT, opener's rebid of his lower ranking suit is NF. Other bids are forcing. Opener's bid of the 4th suit shows a force in his first suit.
- ▼ 3 2NT is forcing when we've shown a six card suit and the 2N bidder is unlimited, e.g.,
 - A 1c 1d 2c 2N
 - B 1d 1M 2d 2N
- ▼ C 1H 1S 2H 2N
 - I 1H 1S 2H 3N = Intended as s/o
- 4 2NT is forcing when we've raised a suit

▼ N Leads and carding

- ▼ 1 Rusinow honor leads vs suits and NT from 3+ card suits
 - ▼ A Exceptions:
 - I Partner's suit
 - II Dummy's suit
 - III By a preemptor in a side suit
 - 2 3rd best from even, low from odd against suits at trick 1 only
- ▼ 3 UDCA with the following exceptions
 - A Standard present count
 - ▼ B Standard attitude at trick 1 vs NT when dummy holds stiff or doubleton A or K
 - I Because third hand might need to unblock from KTx or QTx
 - ▼ C Standard attitude on a K lead when dummy holds 2, 3, or 4 cards to Tx or weaker.
 - I Because third hand might hold JTx or J9x.
 - ▼ D Standard count on J lead (Rusinow) vs suits when dummy holds Kxx or longer, when 3rd hand holds the Ace
 - I Because third hand might hold ATx or A9x.
 - ▼ E Not playing yet:
 - I Standard count on the KQ lead when dummy holds AJx or longer.
- 4 Always lead the correct count card, never high from xxx in an unraised suit against a suit contract
- 5 Count on K lead vs Suits when dummy holds Qxxx or longer
- 6 Attitude on K lead vs Suits when dummy holds specifically Qxx.
- 7 Many SP signals in declarer's suits
- ▼ 8 In general we signal with the highest or lowest card we can afford
 - A But with xxxxx usually signal count with the second highest, then follow with the highest if necessary to clarify 5, not 3.
- ▼ 9 When the opening leader's partner is known to hold 5+ cards in the suit led
 - A If not trying to win the trick, high and low are both suit preference and middle is encouraging.
- ▼ 10 Defensive signaling philosophy:
 - A We use the obvious shift principle at trick one, but not religiously. We do not use the Granovetters' rules for determining the obvious shift suit, and we will give SP when dummy holds a singleton or if it looks like partner wants a ruff.

Other things being equal we give attitude, then (standard) present count, then suit preference. We use a lot of suit preference, including in the trump suit. We do, however, echo with three trump when we want a ruff.

▼ **O Things we don't play**

- 1 SSGT or Help Suit Game Tries
- 2 Good/bad 2N
- 3 Gazilli
- 4 XYZ

▼ **P To discuss**

- 1 1N (P) 2c (2d)
- ▼ 2 They overcall at the 4-level
 - A What is 4N?
- 3 1c 1M 1N 2c by PH
- ▼ 4 1H 2S = 6+S, < INV, want to play 2S opposite any minimum
 - A 2N = Similar to 1m (1H) 2H
- ▼ B 1H 1N 2d
 - I 2H pref
 - ▼ II 2S artificial, GF without direction or GF 55 blacks
 - 2N = natural with club stop
 - 3c = PLOB
 - III 2N INV
 - ▼ IV 3c = any invite
 - ▼ 3d would not accept a diamond invite
 - 3M = INV
 - V 3d = GF
 - VI 3M = natural GF
- ▼ 5 1S 1N 2N F1, either 18-19 Balanced, 5+S and 4H GF, or single suited S GF
- ▼ A 3c Asks, may or may not have D
 - ▼ I 3d 18-19 5332
 - 3H = Try in D
 - Hx of S, choice of games
 - 3N To play
 - ▼ II 3H 5+S 4H GF
 - 4c Good raise to 4H
 - 4d Nat, single suited in D
 - ▼ III 3S Single suited jump shift unbal
 - 4c Good raise
 - 4d Natural
 - ▼ IV 3N Single suited jump shift balanced
 - 4c Good raise to 4S
 - 4d Natural
- ▼ B 3d = 5+ H
 - ▼ I 3H 18-19 bal
 - 3S = 5H, S Hx, choice of games
 - 3N = 5H, choice of games
 - 4c = 6+H, good 4H bid
 - 4d = Good 55 red suits

- II 3S/3N = single suited unbal/bal
- III 4c 4H
- IV 4d/4H = 6+S, 3H
- ▼ C 3H = 3+ S, either a 3 trump limit raise or a hand too weak for 1S–2S
 - ▼ I 3S
 - 3N = Flat limit raise
 - 4S = Not enough to raise to 2S, wants to play game
 - II 3N 5S 4H, responder will cue with LR
 - III 4x = 6+S, responder would rarely try without a LR
 - D 3S = 55 minors maximum
 - E 3N clubs, slam try opposite 18–19
- 6 2WGT
- ▼ 7 2d 2N
 - A 3c = min or max
 - B 3d = medium
 - C 3M = 4
- ▼ 8 2M 2N
 - A 3c = best or worst
 - B 3d = good hand, poor suit in context
 - C 3M = good suit, poor hand
 - D 3OM = 4
- ▼ 9 Kokish system over 3c & 3d openings and 2d P 3d and 2c (natural) P 3c
 - A 4c = majors
 - B 4d = 1 major
 - C 4M = M & om
- ▼ 10 French method after 1M 2d 3d and 1N 2T 2M 3d
 - A 3H shows club stopper or support for M (opener assumes club stop), 3S shows a stopper in the other major.
- 11 Good/bad 2N
- ▼ 12 3d showing some invitational hand over a 3c opening
 - A Opener bids the cheapest invite he would not accept
- 13 2X (3-level overcall) Dbl = game try
- ▼ 14 2N 3c
 - ▼ A 3d
 - ▼ I 4c five card minor
 - ▼ 4d asks
 - 4h = c
 - 4N regressive
 - ▼ II 4d four card minor

- ▼ 4h asks
 - 4s = c
 - 4n = d NF
 - 5x = d
- III 4M = 6 card minor
- 15 New reverse structure, per Michael
- 16 Allow responder to bid more than 2d over 2c with a solid or semi-solid suit
- ▼ 17 1H 1S 2d
 - A And 1H 2S as 6+S, less than invite
- 18 Turbo slam convention
- 19 Might be better to show responder's shortness naturally over an asking bid, so that they cannot profitably double for a lead
- 20 Range ask and 2-suited bids when we overcall 3N
- ▼ 21 1S 1N
2H 2N
 - ▼ A 3c multi-way GF, "forces" 3d
 - ▼ I 3d
 - 3H = 55 F
 - 3S = 64 forcing
 - 3N = 5413 or 5404 NF
 - B 3d = 5431 or 5440 FG
 - C 3M = natural NF
- ▼ 22 1N 2c 2d 4c = a major + minor, mild slam try if fit in minor
 - A 4d asks for minor, lissabon
- 23 Double of Drury for takeout, likewise for other PH art raises
- ▼ 24 1H 1S 2d followups
 - A 3c starts invites, 3H = GF

▼ Q To review

▼ 1 Reviewed

- A Switch
- B After 1N rebid and 2d GF, if M = S then 2H is artificial and denies 3S, 2S shows 3S
- C 1d 1h 1n 2c 2d 2s = unbal inv 5H 3+d (Opener has denied 4S when he opens 1d)
- D 1m 1M 2M 2M+1 = artificial ask (C b vi A)
- E 1H 1S 2S 2N = artificial ask
- F 1m 1M 2N 4M = mild slam try (as is Texas w/o comp)
- G 1c (1d) 2d = Exactly 4=4 in the majors, 9+ HCP
- H 1S 1N 3S 4c = art. slam try
- ▼ I 1m (1H)
 - I 1m (1H) 2H (P) 2N = OGUST ish
 - J 1H 1S 2N 3c 3d 3M shows 5S + corresponding minor
- ▼ K They overcall our 1M opening at the one or two-level
 - I 2NT = Natural GF
 - II Q = LR or non-slamish GF
 - III 3M = Mixed raise
 - IV 3NT = FR, slamish (could be control-rich minimum GF)
- L They bid 2N, unusual
- M 1M – Michaels' (2M = OM + unspecified minor)
- 2 Bart
- 3 They open 3m or raise 2m to 3m
- 4 1m 1H 1S 1N
- 5 Raptor 2S in comp and by PH

▼ **R Open questions**

- 1 p 1h 1s 1n 2d
- 2 UoU what is 4th suit?
- ▼ 3 Double on a or k
 - A When they'd Q'd?
- 4 Transfers after 1M dbl also mixed
- 5 1n p 2t dbl
- 6 1m p 1n p p 2 any