**A-Star Platinum Class Problems**

**Classical DP**

1. Taking Turns (hayturn)
2. Cow Travelling (ctravel)
3. Cheapest Palindrome (cheappal)
4. *(optional) Balanced Cow Breeds (bbreeds)*
5. Buying Hay (buyhay)
6. Bessie's Weight Problem (diet)
7. Lights Out (xlite) (Bitmask DP)

**Computational Geometry**

1. Symmetry Classic Computational Geo
2. Roping the Field
3. Overplanting (planting) union area rectangle
4. Line of Sight (sight) super hard two pointer question
5. Window Area (window) sweep line + implementation
6. Cow Rectangles (cowrect) Cow Rectangles (sweep line easy implementation)
7. Cow School (schul)
8. Cow Curling (curling) binary search + computational geometry

**String Algorithms**

1. Game of Lines (lines)
2. Empty Stalls (empty)
3. City Horizon (horizon)
4. Video Game Combos (combos)
5. Best Cow Line, Gold (bclgold)
6. *(optional) Censoring (censor)*
7. *(optional) Hidden Password (hidden)*

***BIT Tree***

1. Distance (distance)
2. Building a Ski Course (skicourse)
3. Running Away From the Barn (runaway)
4. Above the Median (median)
5. Running Laps (running)
6. Slowing Down (slowdown)
7. Cow Optics (optics) / May be impossible…

**Segment Tree**

1. Balanced Lineup (lineupg)
2. Light Switching (lites)
3. The Lazy Cow (lazy) (sweep line union area rectangle)
4. Marathon (marathon)

DFS/BFS

1. Ranking the Cows (ranking)
2. Great Cow Gathering (gather)
3. Meeting Place (meetplace)
4. The Lost Cows (lostcows)
5. Cow Calisthenics (exercise)
6. *(optional) Grass Planting (grassplant)*

MST/Shortest Path/Hamiltonian Path

1. Ski Course Rating (skilevel)
2. Cheering up the Cows (cheer)
3. Relocation (relocate)
4. Big Macs Around the World (bigmac)
5. Roadblock (rblock)
6. Safe Travel (travel)
7. Redundant Paths (rpaths)
8. *(optional) Camelot (camelot)*
9. *Telephone Lines USACO 2007 Silver*

SCC + Longest Path

1. The Cow Prom (prom) SCC
2. Grass Cownoisseur (grass)
3. Candy (candy) (longest path problem + check cycle)
4. Riding the Fences (fence) (euler tour)
5. Travelling Salesman Problem (tsp)
6. Island Travels (island2) (Hamiltonian path)

Greedy Problems

1. Gangs of Istanbull/Cowstantinople (gangs)
2. Covering the Corral (corral) cycle
3. Bottleneck (bottleneck) impossible
4. Fence Repair (plank) huffman encoding
5. Barn Allocation (balloc) segment tree
6. The Milk Queue (mqueue)
7. Large Banner (banner)

DP with Binary Search

1. The Fewest Coins (fewcoins)
2. Twofive (twofive)
3. Palindromic Paths (palpath) classical DP
4. Mowing the Lawn (mowlawn) state space
5. Buying Feed (feed) state space
6. Moovie Mooving (movie) bitmask
7. *(optional) Tower of Hay (tower) classical DP*

Sliding Window DP

1. Cow Hopscotch (hop) good dp
2. Route Designing (route) weird dp states
3. Hidden Codes (codes)
4. Telephone Wire (telewire) good dp + sweep*)*
5. *The Triangle (tri) cute observations*
6. *(optional) No Change (nochange) bitwise dp*

Advanced DP

1. Fair Photography (fairphoto) dp with bitmask + more stuff
2. Cow Decathlon (dec) bitmask
3. Guard Mark (guard) bitmask
4. Cow Hopscotch (hopscotch) seg tree dp
5. *(optional) The Baric Bovine (baric) hard dp 3 states*
6. *(optional) Largest Fence (fence2)*

Tree DP

1. Visiting Cows (vacation)
2. Balanced Trees (btree)
3. Code Breaking (code)

Final:  
Picture USACO (Line Sweep)

Layout USACO (Bellman Ford)

Coupons USACO (Greedy)

Cow Neighborhoods USACO (MST)