### Detecting Ascending Triangle Patterns in Bitcoin's 4-Hour Historical Data

### Workflow to Achieve Deliverables:

1. **Detect Ascending Triangle Patterns:**

Based on given bitcoin dataset, Total Detected ascending triangle patterns is 291

1. **Real-Time Detection**:

In real-time, we would process incoming data in small windows (in 4 hours timeframe). Here are some considerations:

* Sliding Window: Continuously check new incoming data for the pattern using a sliding window approach.
* Efficient Storage: Store recent data in a queue or similar structure to detect patterns without recalculating for all data.
* Real-time Strategy: Use a rolling calculation of trendlines to monitor the formation of the pattern.

1. **Suggest Strategies for Using Detected Ascending Triangle Patterns for Trading:**

#### 3.1 **Strategy 1: Buying at Support and Selling Near Resistance**

* **Buy Signal**: When the price touches or is near the **ascending support line** (lower trendline), traders can initiate a **buy position**. This strategy anticipates that the price will continue moving up toward the resistance.
* **Sell Signal**: As the price approaches the **flat upper resistance** line, traders can **sell** or **take profit**.
* **Stop-Loss**: Place a **stop-loss** slightly below the ascending support trendline to minimize losses in case the pattern breaks down.

### ****Strategy 2:** Buy on Pullbacks Within the Pattern**

### ****Entry Point****: Enter a **long position** when the price pulls back to the rising support line within the Ascending Triangle pattern.

* **Rationale**: Buying at the support line allows entering at a lower price, potentially increasing profit margins while still capitalizing on the bullish pattern.
* **Stop-Loss Placement**: Place a stop-loss order below the support line to protect against a potential breakdown.
* **Take-Profit Target**: Aim for the upper resistance line or set a fixed percentage gain.

1. **Timestamps for start and end:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pattern Number** | **Start Time** | **End Time** | **Pattern Number** | **Start Time** | **End Time** |
| 1 | 2021-08-03 20:00:00 | 2021-08-04 00:00:00 | 35 | 2021-12-10 04:00:00 | 2021-12-10 08:00:00 |
| 2 | 2021-08-07 04:00:00 | 2021-08-07 08:00:00 | 36 | 2021-12-11 04:00:00 | 2021-12-11 12:00:00 |
| 3 | 2021-08-09 12:00:00 | 2021-08-09 16:00:00 | 37 | 2021-12-11 20:00:00 | 2021-12-12 00:00:00 |
| 4 | 2021-08-13 08:00:00 | 2021-08-13 16:00:00 | 38 | 2021-12-14 00:00:00 | 2021-12-14 04:00:00 |
| 5 | 2021-08-14 00:00:00 | 2021-08-14 04:00:00 | 39 | 2021-12-15 20:00:00 | 2021-12-16 00:00:00 |
| 6 | 2021-08-20 04:00:00 | 2021-08-20 08:00:00 | 40 | 2021-12-22 16:00:00 | 2021-12-22 20:00:00 |
| 7 | 2021-08-22 04:00:00 | 2021-08-22 08:00:00 | 41 | 2021-12-23 04:00:00 | 2021-12-23 08:00:00 |
| 8 | 2021-08-23 04:00:00 | 2021-08-23 08:00:00 | 42 | 2021-12-25 00:00:00 | 2021-12-25 04:00:00 |
| 9 | 2021-08-28 16:00:00 | 2021-08-28 20:00:00 | 43 | 2021-12-26 12:00:00 | 2021-12-26 16:00:00 |
| 10 | 2021-08-31 08:00:00 | 2021-08-31 12:00:00 | 44 | 2021-12-27 00:00:00 | 2021-12-27 04:00:00 |
| 11 | 2021-09-04 00:00:00 | 2021-09-04 04:00:00 | 45 | 2021-12-29 00:00:00 | 2021-12-29 04:00:00 |
| 12 | 2021-09-06 00:00:00 | 2021-09-06 04:00:00 | 46 | 2021-12-31 00:00:00 | 2021-12-31 04:00:00 |
| 13 | 2021-09-09 04:00:00 | 2021-09-09 08:00:00 | 47 | 2022-01-01 08:00:00 | 2022-01-01 12:00:00 |
| 14 | 2021-09-12 12:00:00 | 2021-09-12 16:00:00 | 48 | 2022-01-01 20:00:00 | 2022-01-02 00:00:00 |
| 15 | 2021-09-15 16:00:00 | 2021-09-15 20:00:00 | 49 | 2022-01-02 08:00:00 | 2022-01-02 12:00:00 |
| 16 | 2021-09-17 00:00:00 | 2021-09-17 04:00:00 | 50 | 2022-01-03 04:00:00 | 2022-01-03 08:00:00 |
| 17 | 2021-09-25 12:00:00 | 2021-09-25 20:00:00 | 51 | 2022-01-04 00:00:00 | 2022-01-04 08:00:00 |
| 18 | 2021-10-09 08:00:00 | 2021-10-09 12:00:00 | 52 | 2022-01-09 00:00:00 | 2022-01-09 04:00:00 |
| 19 | 2021-10-12 04:00:00 | 2021-10-12 08:00:00 | 53 | 2022-01-14 00:00:00 | 2022-01-14 04:00:00 |
| 20 | 2021-10-17 08:00:00 | 2021-10-17 12:00:00 | 54 | 2022-01-14 16:00:00 | 2022-01-14 20:00:00 |
| 21 | 2021-10-18 16:00:00 | 2021-10-18 20:00:00 | 55 | 2022-01-20 00:00:00 | 2022-01-20 08:00:00 |
| 22 | 2021-10-19 20:00:00 | 2021-10-20 00:00:00 | 56 | 2022-01-29 00:00:00 | 2022-01-29 04:00:00 |
| 23 | 2021-10-22 20:00:00 | 2021-10-23 00:00:00 | 57 | 2022-02-05 00:00:00 | 2022-02-05 04:00:00 |
| 24 | 2021-10-23 12:00:00 | 2021-10-23 16:00:00 | 58 | 2022-02-13 04:00:00 | 2022-02-13 08:00:00 |
| 25 | 2021-11-01 20:00:00 | 2021-11-02 00:00:00 | 59 | 2022-02-14 04:00:00 | 2022-02-14 08:00:00 |
| 26 | 2021-11-03 00:00:00 | 2021-11-03 08:00:00 | 60 | 2022-02-16 16:00:00 | 2022-02-16 20:00:00 |
| 27 | 2021-11-11 16:00:00 | 2021-11-11 20:00:00 | 61 | 2022-02-18 20:00:00 | 2022-02-19 04:00:00 |
| 28 | 2021-11-17 12:00:00 | 2021-11-18 00:00:00 | 62 | 2022-02-26 12:00:00 | 2022-02-26 16:00:00 |
| 29 | 2021-11-20 04:00:00 | 2021-11-20 08:00:00 | 63 | 2022-02-28 00:00:00 | 2022-02-28 08:00:00 |
| 30 | 2021-11-23 12:00:00 | 2021-11-23 20:00:00 | 64 | 2022-03-05 08:00:00 | 2022-03-05 12:00:00 |
| 31 | 2021-11-27 00:00:00 | 2021-11-27 04:00:00 | 65 | 2022-03-09 12:00:00 | 2022-03-09 16:00:00 |
| 32 | 2021-11-27 12:00:00 | 2021-11-27 16:00:00 | 66 | 2022-03-12 00:00:00 | 2022-03-12 08:00:00 |
| 33 | 2021-12-03 04:00:00 | 2021-12-03 08:00:00 | 67 | 2022-03-19 04:00:00 | 2022-03-19 12:00:00 |
| 34 | 2021-12-07 04:00:00 | 2021-12-07 08:00:00 | 68 | 2022-03-24 16:00:00 | 2022-03-25 04:00:00 |
| **Pattern Number** | **Start Time** | **End Time** | **Pattern Number** | **Start Time** | **End Time** |
| 69 | 2022-03-27 00:00:00 | 2022-03-27 04:00:00 | 105 | 2022-08-18 00:00:00 | 2022-08-18 12:00:00 |
| 70 | 2022-03-29 04:00:00 | 2022-03-29 08:00:00 | 106 | 2022-08-20 08:00:00 | 2022-08-20 12:00:00 |
| 71 | 2022-04-01 16:00:00 | 2022-04-01 20:00:00 | 107 | 2022-08-21 12:00:00 | 2022-08-21 16:00:00 |
| 72 | 2022-04-05 00:00:00 | 2022-04-05 04:00:00 | 108 | 2022-08-23 16:00:00 | 2022-08-23 20:00:00 |
| 73 | 2022-04-08 00:00:00 | 2022-04-08 04:00:00 | 109 | 2022-08-24 04:00:00 | 2022-08-24 08:00:00 |
| 74 | 2022-04-09 16:00:00 | 2022-04-09 20:00:00 | 110 | 2022-08-27 20:00:00 | 2022-08-28 08:00:00 |
| 75 | 2022-04-13 00:00:00 | 2022-04-13 04:00:00 | 111 | 2022-08-29 00:00:00 | 2022-08-29 08:00:00 |
| 76 | 2022-04-13 16:00:00 | 2022-04-14 04:00:00 | 112 | 2022-08-31 16:00:00 | 2022-08-31 20:00:00 |
| 77 | 2022-04-14 20:00:00 | 2022-04-15 00:00:00 | 113 | 2022-09-02 00:00:00 | 2022-09-02 04:00:00 |
| 78 | 2022-04-15 20:00:00 | 2022-04-16 00:00:00 | 114 | 2022-09-03 20:00:00 | 2022-09-04 00:00:00 |
| 79 | 2022-04-17 04:00:00 | 2022-04-17 08:00:00 | 115 | 2022-09-04 12:00:00 | 2022-09-04 20:00:00 |
| 80 | 2022-04-19 20:00:00 | 2022-04-20 04:00:00 | 116 | 2022-09-05 16:00:00 | 2022-09-05 20:00:00 |
| 81 | 2022-04-20 20:00:00 | 2022-04-21 00:00:00 | 117 | 2022-09-07 04:00:00 | 2022-09-07 08:00:00 |
| 82 | 2022-04-22 20:00:00 | 2022-04-23 00:00:00 | 118 | 2022-09-12 12:00:00 | 2022-09-12 20:00:00 |
| 83 | 2022-04-23 08:00:00 | 2022-04-23 12:00:00 | 119 | 2022-09-16 00:00:00 | 2022-09-16 04:00:00 |
| 84 | 2022-04-24 00:00:00 | 2022-04-24 04:00:00 | 120 | 2022-09-17 04:00:00 | 2022-09-17 08:00:00 |
| 85 | 2022-04-26 00:00:00 | 2022-04-26 04:00:00 | 121 | 2022-09-17 20:00:00 | 2022-09-18 04:00:00 |
| 86 | 2022-04-27 16:00:00 | 2022-04-27 20:00:00 | 122 | 2022-09-22 20:00:00 | 2022-09-23 00:00:00 |
| 87 | 2022-04-28 16:00:00 | 2022-04-28 20:00:00 | 123 | 2022-09-25 00:00:00 | 2022-09-25 04:00:00 |
| 88 | 2022-05-19 00:00:00 | 2022-05-19 04:00:00 | 124 | 2022-09-26 12:00:00 | 2022-09-26 20:00:00 |
| 89 | 2022-05-22 12:00:00 | 2022-05-22 16:00:00 | 125 | 2022-09-27 04:00:00 | 2022-09-27 08:00:00 |
| 90 | 2022-05-25 12:00:00 | 2022-05-25 20:00:00 | 126 | 2022-09-30 04:00:00 | 2022-09-30 08:00:00 |
| 91 | 2022-05-28 04:00:00 | 2022-05-28 08:00:00 | 127 | 2022-10-02 12:00:00 | 2022-10-02 16:00:00 |
| 92 | 2022-06-04 04:00:00 | 2022-06-04 08:00:00 | 128 | 2022-10-03 00:00:00 | 2022-10-03 08:00:00 |
| 93 | 2022-06-04 16:00:00 | 2022-06-05 00:00:00 | 129 | 2022-10-07 20:00:00 | 2022-10-08 00:00:00 |
| 94 | 2022-06-10 20:00:00 | 2022-06-11 04:00:00 | 130 | 2022-10-09 20:00:00 | 2022-10-10 00:00:00 |
| 95 | 2022-06-20 20:00:00 | 2022-06-21 00:00:00 | 131 | 2022-10-11 04:00:00 | 2022-10-11 08:00:00 |
| 96 | 2022-06-26 00:00:00 | 2022-06-26 04:00:00 | 132 | 2022-10-12 00:00:00 | 2022-10-12 08:00:00 |
| 97 | 2022-06-29 12:00:00 | 2022-06-29 16:00:00 | 133 | 2022-10-12 16:00:00 | 2022-10-12 20:00:00 |
| 98 | 2022-07-02 16:00:00 | 2022-07-02 20:00:00 | 134 | 2022-10-16 00:00:00 | 2022-10-16 04:00:00 |
| 99 | 2022-07-06 04:00:00 | 2022-07-06 08:00:00 | 135 | 2022-10-17 16:00:00 | 2022-10-18 00:00:00 |
| 100 | 2022-07-28 16:00:00 | 2022-07-28 20:00:00 | 136 | 2022-10-18 20:00:00 | 2022-10-19 00:00:00 |
| 101 | 2022-08-07 20:00:00 | 2022-08-08 00:00:00 | 135 | 2022-10-17 16:00:00 | 2022-10-18 00:00:00 |
| 102 | 2022-08-13 12:00:00 | 2022-08-13 16:00:00 | 136 | 2022-10-18 20:00:00 | 2022-10-19 00:00:00 |
| 103 | 2022-08-15 12:00:00 | 2022-08-15 16:00:00 | 137 | 2022-10-20 04:00:00 | 2022-10-20 08:00:00 |
| **Pattern Number** | | **Start Time** | **End Time** | **Pattern Number** | **Start Time** | **End Time** |
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| 139 | | 2022-10-22 04:00:00 | 2022-10-22 12:00:00 | 175 | 2022-12-19 04:00:00 | 2022-12-19 08:00:00 |
| 140 | | 2022-10-24 16:00:00 | 2022-10-24 20:00:00 | 176 | 2022-12-20 04:00:00 | 2022-12-20 08:00:00 |
| 141 | | 2022-10-26 00:00:00 | 2022-10-26 04:00:00 | 177 | 2022-12-21 16:00:00 | 2022-12-22 00:00:00 |
| 142 | | 2022-10-26 16:00:00 | 2022-10-26 20:00:00 | 178 | 2022-12-23 00:00:00 | 2022-12-23 08:00:00 |
| 143 | | 2022-10-31 20:00:00 | 2022-11-01 00:00:00 | 179 | 2022-12-24 00:00:00 | 2022-12-24 08:00:00 |
| 144 | | 2022-11-01 16:00:00 | 2022-11-01 20:00:00 | 180 | 2022-12-25 16:00:00 | 2022-12-26 00:00:00 |
| 145 | | 2022-11-03 00:00:00 | 2022-11-03 04:00:00 | 181 | 2022-12-26 16:00:00 | 2022-12-26 20:00:00 |
| 146 | | 2022-11-06 08:00:00 | 2022-11-06 12:00:00 | 182 | 2022-12-28 04:00:00 | 2022-12-28 08:00:00 |
| 147 | | 2022-11-07 12:00:00 | 2022-11-07 16:00:00 | 183 | 2022-12-29 00:00:00 | 2022-12-29 04:00:00 |
| 148 | | 2022-11-12 08:00:00 | 2022-11-12 16:00:00 | 184 | 2022-12-29 12:00:00 | 2022-12-29 16:00:00 |
| 149 | | 2022-11-15 04:00:00 | 2022-11-15 08:00:00 | 185 | 2022-12-31 08:00:00 | 2022-12-31 16:00:00 |
| 150 | | 2022-11-16 00:00:00 | 2022-11-16 04:00:00 | 186 | 2023-01-01 08:00:00 | 2023-01-01 20:00:00 |
| 151 | | 2022-11-17 16:00:00 | 2022-11-17 20:00:00 | 187 | 2023-01-02 04:00:00 | 2023-01-02 08:00:00 |
| 152 | | 2022-11-19 08:00:00 | 2022-11-19 12:00:00 | 188 | 2023-01-03 04:00:00 | 2023-01-03 08:00:00 |
| 153 | | 2022-11-20 00:00:00 | 2022-11-20 04:00:00 | 189 | 2023-01-05 16:00:00 | 2023-01-05 20:00:00 |
| 154 | | 2022-11-22 16:00:00 | 2022-11-22 20:00:00 | 190 | 2023-01-06 20:00:00 | 2023-01-07 00:00:00 |
| 155 | | 2022-11-23 04:00:00 | 2022-11-23 08:00:00 | 191 | 2023-01-07 16:00:00 | 2023-01-07 20:00:00 |
| 156 | | 2022-11-24 16:00:00 | 2022-11-24 20:00:00 | 192 | 2023-01-09 00:00:00 | 2023-01-09 12:00:00 |
| 157 | | 2022-11-25 12:00:00 | 2022-11-25 20:00:00 | 193 | 2023-01-10 00:00:00 | 2023-01-10 04:00:00 |
| 158 | | 2022-11-26 04:00:00 | 2022-11-26 08:00:00 | 194 | 2023-01-10 16:00:00 | 2023-01-10 20:00:00 |
| 159 | | 2022-11-27 00:00:00 | 2022-11-27 04:00:00 | 195 | 2023-01-11 04:00:00 | 2023-01-11 08:00:00 |
| 160 | | 2022-11-27 12:00:00 | 2022-11-27 16:00:00 | 196 | 2023-01-15 16:00:00 | 2023-01-15 20:00:00 |
| 161 | | 2022-11-29 16:00:00 | 2022-11-29 20:00:00 | 197 | 2023-01-17 04:00:00 | 2023-01-17 08:00:00 |
| 162 | | 2022-12-02 00:00:00 | 2022-12-02 08:00:00 | 198 | 2023-01-19 20:00:00 | 2023-01-20 00:00:00 |
| 163 | | 2022-12-03 12:00:00 | 2022-12-03 16:00:00 | 199 | 2023-01-21 12:00:00 | 2023-01-21 16:00:00 |
| 164 | | 2022-12-05 04:00:00 | 2022-12-05 08:00:00 | 200 | 2023-01-22 04:00:00 | 2023-01-22 08:00:00 |
| 165 | | 2022-12-07 12:00:00 | 2022-12-07 20:00:00 | 201 | 2023-01-24 00:00:00 | 2023-01-24 04:00:00 |
| 166 | | 2022-12-08 20:00:00 | 2022-12-09 08:00:00 | 202 | 2023-01-27 04:00:00 | 2023-01-27 08:00:00 |
| 167 | | 2022-12-10 00:00:00 | 2022-12-10 04:00:00 | 203 | 2023-01-31 00:00:00 | 2023-01-31 08:00:00 |
| 168 | | 2022-12-10 12:00:00 | 2022-12-10 16:00:00 | 204 | 2023-02-05 04:00:00 | 2023-02-05 08:00:00 |
| 169 | | 2022-12-11 00:00:00 | 2022-12-11 04:00:00 | 205 | 2023-02-06 08:00:00 | 2023-02-06 12:00:00 |
| 170 | | 2022-12-12 12:00:00 | 2022-12-12 16:00:00 | 206 | 2023-02-07 04:00:00 | 2023-02-07 12:00:00 |
| 171 | | 2022-12-13 20:00:00 | 2022-12-14 00:00:00 | 207 | 2023-02-11 00:00:00 | 2023-02-11 12:00:00 |
| 172 | | 2022-12-17 04:00:00 | 2022-12-17 08:00:00 | 208 | 2023-02-14 00:00:00 | 2023-02-14 04:00:00 |
| 173 | | 2022-12-17 16:00:00 | 2022-12-18 04:00:00 | 209 | 2023-02-14 16:00:00 | 2023-02-14 20:00:00 |
| **Pattern Number** | | **Start Time** | **End Time** | **Pattern Number** | **Start Time** | **End Time** |
| 210 | | 2023-02-23 20:00:00 | 2023-02-24 00:00:00 | 246 | 2023-05-25 04:00:00 | 2023-05-25 08:00:00 |
| 211 | | 2023-02-24 20:00:00 | 2023-02-25 00:00:00 | 247 | 2023-05-25 16:00:00 | 2023-05-25 20:00:00 |
| 212 | | 2023-02-26 00:00:00 | 2023-02-26 12:00:00 | 248 | 2023-05-26 16:00:00 | 2023-05-26 20:00:00 |
| 213 | | 2023-03-02 16:00:00 | 2023-03-02 20:00:00 | 249 | 2023-05-27 16:00:00 | 2023-05-27 20:00:00 |
| 214 | | 2023-03-06 04:00:00 | 2023-03-06 08:00:00 | 250 | 2023-05-28 04:00:00 | 2023-05-28 08:00:00 |
| 215 | | 2023-03-07 00:00:00 | 2023-03-07 04:00:00 | 251 | 2023-05-29 20:00:00 | 2023-05-30 04:00:00 |
| 216 | | 2023-03-10 16:00:00 | 2023-03-10 20:00:00 | 252 | 2023-06-02 16:00:00 | 2023-06-02 20:00:00 |
| 217 | | 2023-03-13 16:00:00 | 2023-03-14 00:00:00 | 253 | 2023-06-03 04:00:00 | 2023-06-03 12:00:00 |
| 218 | | 2023-03-17 12:00:00 | 2023-03-17 16:00:00 | 254 | 2023-06-04 00:00:00 | 2023-06-04 04:00:00 |
| 219 | | 2023-03-18 00:00:00 | 2023-03-18 04:00:00 | 255 | 2023-06-06 00:00:00 | 2023-06-06 04:00:00 |
| 220 | | 2023-03-22 00:00:00 | 2023-03-22 04:00:00 | 256 | 2023-06-08 00:00:00 | 2023-06-08 08:00:00 |
| 221 | | 2023-03-26 00:00:00 | 2023-03-26 04:00:00 | 257 | 2023-06-08 16:00:00 | 2023-06-08 20:00:00 |
| 222 | | 2023-03-28 20:00:00 | 2023-03-29 00:00:00 | 258 | 2023-06-09 04:00:00 | 2023-06-09 08:00:00 |
| 223 | | 2023-03-31 16:00:00 | 2023-03-31 20:00:00 | 259 | 2023-06-13 20:00:00 | 2023-06-14 00:00:00 |
| 224 | | 2023-04-01 16:00:00 | 2023-04-01 20:00:00 | 260 | 2023-06-14 08:00:00 | 2023-06-14 12:00:00 |
| 225 | | 2023-04-04 12:00:00 | 2023-04-04 20:00:00 | 261 | 2023-06-17 16:00:00 | 2023-06-17 20:00:00 |
| 226 | | 2023-04-07 08:00:00 | 2023-04-07 16:00:00 | 262 | 2023-06-22 16:00:00 | 2023-06-22 20:00:00 |
| 227 | | 2023-04-08 00:00:00 | 2023-04-08 08:00:00 | 263 | 2023-06-23 04:00:00 | 2023-06-23 08:00:00 |
| 228 | | 2023-04-08 20:00:00 | 2023-04-09 00:00:00 | 264 | 2023-06-24 04:00:00 | 2023-06-24 08:00:00 |
| 229 | | 2023-04-11 08:00:00 | 2023-04-11 12:00:00 | 265 | 2023-07-01 08:00:00 | 2023-07-01 20:00:00 |
| 230 | | 2023-04-15 00:00:00 | 2023-04-15 08:00:00 | 266 | 2023-07-02 04:00:00 | 2023-07-02 08:00:00 |
| 231 | | 2023-04-17 16:00:00 | 2023-04-17 20:00:00 | 267 | 2023-07-02 16:00:00 | 2023-07-03 04:00:00 |
| 232 | | 2023-04-21 08:00:00 | 2023-04-21 12:00:00 | 268 | 2023-07-03 20:00:00 | 2023-07-04 00:00:00 |
| 233 | | 2023-04-22 00:00:00 | 2023-04-22 04:00:00 | 269 | 2023-07-05 00:00:00 | 2023-07-05 04:00:00 |
| 234 | | 2023-04-23 16:00:00 | 2023-04-23 20:00:00 | 270 | 2023-07-05 16:00:00 | 2023-07-05 20:00:00 |
| 235 | | 2023-04-26 00:00:00 | 2023-04-26 04:00:00 | 271 | 2023-07-07 04:00:00 | 2023-07-08 00:00:00 |
| 236 | | 2023-04-28 16:00:00 | 2023-04-28 20:00:00 | 272 | 2023-07-08 20:00:00 | 2023-07-09 00:00:00 |
| 237 | | 2023-05-02 16:00:00 | 2023-05-02 20:00:00 | 273 | 2023-07-11 16:00:00 | 2023-07-11 20:00:00 |
| 238 | | 2023-05-03 04:00:00 | 2023-05-03 08:00:00 | 274 | 2023-07-12 20:00:00 | 2023-07-13 00:00:00 |
| 239 | | 2023-05-04 00:00:00 | 2023-05-04 04:00:00 | 275 | 2023-07-13 20:00:00 | 2023-07-14 00:00:00 |
| 240 | | 2023-05-09 20:00:00 | 2023-05-10 00:00:00 | 276 | 2023-07-15 00:00:00 | 2023-07-15 08:00:00 |
| 241 | | 2023-05-13 00:00:00 | 2023-05-13 08:00:00 | 277 | 2023-07-15 16:00:00 | 2023-07-15 20:00:00 |
| 242 | | 2023-05-17 20:00:00 | 2023-05-18 00:00:00 | 278 | 2023-07-16 04:00:00 | 2023-07-16 12:00:00 |
| 243 | | 2023-05-19 20:00:00 | 2023-05-20 12:00:00 | 279 | 2023-07-17 00:00:00 | 2023-07-17 04:00:00 |
| 244 | | 2023-05-21 12:00:00 | 2023-05-21 16:00:00 | 280 | 2023-07-17 20:00:00 | 2023-07-18 00:00:00 |
| 245 | | 2023-05-22 04:00:00 | 2023-05-22 08:00:00 | 281 | 2023-07-20 20:00:00 | 2023-07-21 04:00:00 |
| **Pattern Number** | | **Start Time** | **End Time** |
| 282 | | 2023-07-21 20:00:00 | 2023-07-22 00:00:00 |
| 283 | | 2023-07-23 00:00:00 | 2023-07-23 08:00:00 |
| 284 | | 2023-07-24 16:00:00 | 2023-07-24 20:00:00 |
| 285 | | 2023-07-25 04:00:00 | 2023-07-25 08:00:00 |
| 286 | | 2023-07-25 16:00:00 | 2023-07-25 20:00:00 |
| 287 | | 2023-07-26 12:00:00 | 2023-07-26 16:00:00 |
| 288 | | 2023-07-27 04:00:00 | 2023-07-27 08:00:00 |
| 289 | | 2023-07-27 20:00:00 | 2023-07-28 00:00:00 |
| 290 | | 2023-07-28 20:00:00 | 2023-07-29 00:00:00 |
| 291 | | 2023-07-29 12:00:00 | 2023-07-29 20:00:00 |