## Hardrock Hundred 2019, Else Lottery Chances

Entry slots: 65, Lotteries: 1000000

Distribution of tickets: 11 40 52 43 43 28 6 1 1 1 0 0 0 0 0 0 0 0 1 Entrants: 227, Total Tickets: 891 An average of 79.3 tickets were chosen in each lottery to fill 65 slots 11 holders of 1 tickets have a 8.5 percent chance of getting in. Expected number = 0.9 Expected Range = -0.0 - 1.940 holders of 2 tickets have a 16.3 percent chance of getting in. Expected number = 6.5 Expected Range = 4.0 - 9.152 holders of 3 tickets have a 23.5 percent chance of getting in. Expected number = 12.2 Expected Range = 8.7 - 15.7 43 holders of 4 tickets have a 30.0 percent chance of getting in. Expected number = 12.9 Expected Range = 9.3 - 16.5 43 holders of 5 tickets have a 36.0 percent chance of getting in. Expected number = 15.5 Expected Range = 11.6 - 19.4 28 holders of 6 tickets have a 41.5 percent chance of getting in. Expected number = 11.6 Expected Range = 8.2 - 15.0 6 holders of 7 tickets have a 46.5 percent chance of getting in. Expected number = 2.8 Expected Range = 1.1 - 4.5 1 holders of 8 tickets have a 51.0 percent chance of getting in. Expected number = 0.5 Expected Range = -0.2 - 1.21 holders of 9 tickets have a 55.4 percent chance of getting in. Expected number = 0.6 Expected Range = -0.2 - 1.31 holders of 10 tickets have a 59.1 percent chance of getting in. Expected number = 0.6 Expected Range = -0.2 - 1.41 holders of 20 tickets have a 83.2 percent chance of getting in. Expected number = 0.8 Expected Range = -0.1 - 1.7Entrants with this # of tickets: 20 10 Were chosen 0 times in this # of lotteries: 371552 496 0 21854 490152 446477 409173 168006 Were chosen 1 times in this # of lotteries: 388631 4325 2 119458 509848 553523 590827 831994 Were chosen 2 times in this # of lotteries: 180849 18562 23 267849 26 10 Were chosen 3 times in this # of lotteries: 49101 52029 61 145 312853 170 Were chosen 4 times in this # of lotteries: 8742 101789 882 744 201443 280 Were chosen 5 times in this # of lotteries: 1028 152282 3292 1251 74 3185 67356 Were chosen 6 times in this # of lotteries: 289 10350 9187 88 179774 9645 4577 Were chosen 7 times in this # of lotteries: 9 171625 22613 12223 1072 26366 Were chosen 8 times in this # of lotteries: 0 136676 45262 27940 3271 54652 0 Were chosen 9 times in this # of lotteries: 0 90629 76425 52954 9038 93853 Ω Were chosen 10 times in this # of lotteries: 0 51478 109786 84874 19883 133450 Were chosen 11 times in this # of lotteries: 0 24545 134750 118047 39305 160832 Were chosen 12 times in this # of lotteries: 0 10331 146465 141299 66430 162451 Ω Were chosen 13 times in this # of lotteries: 3837 137506 147894 97421 138221 0 Were chosen 14 times in this # of lotteries: 1216 114753 134464 125620 100359 0 Ω Ω Ω Were chosen 15 times in this # of lotteries: 321 84514 107423 141569 61923 Were chosen 16 times in this # of lotteries: Ω 72 54371 74810 139786 32113 Ω Ω Were chosen 17 times in this # of lotteries: 12 31376 46360 122517 14016 Were chosen 18 times in this # of lotteries: 0 1 16069 25214 94354 0 0 5206 Were chosen 19 times in this # of lotteries: 7473 12267 64351 1611 Were chosen 20 times in this # of lotteries: 0 3006 5080 38661 393 0 Were chosen 21 times in this # of lotteries: 1086 2066 20511 84 Ω Ω Were chosen 22 times in this # of lotteries: 0 388 643 9646 18 0 0 Ω Were chosen 23 times in this # of lotteries: 4108 196 Were chosen 24 times in this # of lotteries: 0 0 Ω 1462 0 0 Ω 0 0 Were chosen 25 times in this # of lotteries: 14 458 0 Were chosen 26 times in this # of lotteries: 0 Ω Ω 122 Ω Ω Ω Ω Ω Were chosen 27 times in this # of lotteries: Were chosen 28 times in this # of lotteries: 0 0 0 0 0 0 0 Were chosen 29 times in this # of lotteries: 0 0 0 0 0 Ω Were chosen 30 times in this # of lotteries: 0 0 0

## **Hardrock Hundred 2019, Never Lottery Chances**

Entry slots: 45, Lotteries: 1000000

Entrants: 2223, Total Tickets: 16834

An average of 48.4 tickets were chosen in each lottery to fill 45 slots

778 holders of 1 tickets have a 0.3 percent chance of getting in. Expected number = 2.2 Expected Range = 0.7 - 3.7 552 holders of 2 tickets have a 0.6 percent chance of getting in. Expected number = 3.2 Expected Range = 1.4 - 4.9 340 holders of 4 tickets have a 1.1 percent chance of getting in. Expected number = 3.9 Expected Range = 1.9 - 5.9 229 holders of 8 tickets have a 2.3 percent chance of getting in. Expected number = 5.2 Expected Range = 2.9 - 7.5 155 holders of 16 tickets have a 4.5 percent chance of getting in. Expected number = 7.0 Expected Range = 4.3 - 9.6 104 holders of 32 tickets have a 8.8 percent chance of getting in. Expected number = 9.1 Expected Range = 6.1 - 12.2 12 13 holders of 128 tickets have a 30.8 percent chance of getting in. Expected number = 5.5 Expected Range = 3.2 - 7.9 14 holders of 256 tickets have a 52.3 percent chance of getting in. Expected number = 0.5 Expected Range = -0.2 - 1.2 14 holders of 512 tickets have a 77.1 percent chance of getting in. Expected number = 0.8 Expected Range = -0.1 - 1.6

Entrants with this # of tickets: Were chosen 0 times in this # of lotteries: 100461 36560 16472 918 477401 229104 Were chosen 1 times in this # of lotteries: 237837 126862 71529 21901 8256 522599 770896 Were chosen 2 times in this # of lotteries: 274775 213470 151156 65181 15530 6798 34715 Were chosen 3 times in this # of lotteries: 205207 232354 207478 125058 41983 6729 22919 89944 Were chosen 4 times in this # of lotteries: 111433 184657 206403 174476 84479 19509 54786 160334 Were chosen 5 times in this # of lotteries: 47727 113936 160200 188743 130413 43937 100128 206486 Were chosen 6 times in this # of lotteries: 16386 56817 99924 163741 161916 78665 144733 200597 Were chosen 7 times in this # of lotteries: 4755 23679 51750 118776 167003 117306 170496 150984 Were chosen 8 times in this # of lotteries: 22502 72244 145067 145465 165544 87976 Were chosen 9 times in this # of lotteries: 8726 38231 108238 153875 135006 Were chosen 10 times in this # of lotteries: 2774 17509 69419 141554 93972 14335 Were chosen 11 times in this # of lotteries: 6968 38906 113087 55483 Were chosen 12 times in this # of lotteries: 2555 19655 79446 28539 Were chosen 13 times in this # of lotteries: 8643 49185 12863 Were chosen 14 times in this # of lotteries: 3194 26850 Were chosen 15 times in this # of lotteries: 1138 13312 Were chosen 16 times in this # of lotteries: Were chosen 17 times in this # of lotteries: Were chosen 18 times in this # of lotteries: Were chosen 19 times in this # of lotteries: Were chosen 20 times in this # of lotteries: Were chosen 21 times in this # of lotteries: Ω Were chosen 22 times in this # of lotteries: Were chosen 23 times in this # of lotteries: Were chosen 24 times in this # of lotteries: Ω 

## Hardrock Hundred 2019, Veteran Lottery Chances

Entry slots: 33, Lotteries: 1000000 Distribution of tickets: 0 0 0 0 7 7 4 3 3 1 1 2 2 1 0 3 0 0 0 0 0 1 0 1 0 0 1 Entrants: 37, Total Tickets: 362 An average of 101.9 tickets were chosen in each lottery to fill 33 slots 7 holders of 5 tickets have a 77.5 percent chance of getting in. Expected number = 5.4 Expected Range = 3.1 - 7.8 7 holders of 6 tickets have a 83.3 percent chance of getting in. Expected number = 5.8 Expected Range = 3.4 - 8.2 4 holders of 7 tickets have a 87.5 percent chance of getting in. Expected number = 3.5 Expected Range = 1.6 - 5.4 3 holders of 8 tickets have a 90.6 percent chance of getting in. Expected number = 2.7 Expected Range = 1.1 - 4.4 3 holders of 9 tickets have a 93.0 percent chance of getting in. Expected number = 2.8 Expected Range = 1.1 - 4.5 1 holders of 10 tickets have a 94.7 percent chance of getting in. Expected number = 0.9 Expected Range = -0.0 - 1.9 1 holders of 11 tickets have a 95.9 percent chance of getting in. Expected number = 1.0 Expected Range = -0.0 - 1.9 2 holders of 12 tickets have a 96.9 percent chance of getting in. Expected number = 1.9 Expected Range = 0.5 - 3.3 2 holders of 13 tickets have a 97.6 percent chance of getting in. Expected number = 2.0 Expected Range = 0.6 - 3.3 1 holders of 14 tickets have a 98.2 percent chance of getting in. Expected number = 1.0 Expected Range = -0.0 - 2.0 3 holders of 16 tickets have a 98.9 percent chance of getting in. Expected number = 3.0 Expected Range = 1.2 - 4.7 1 holders of 22 tickets have a 99.7 percent chance of getting in. Expected number = 1.0 Expected Range = -0.0 - 2.0 1 holders of 24 tickets have a 99.8 percent chance of getting in. Expected number = 1.0 Expected Range = -0.0 - 2.0 1 holders of 27 tickets have a 99.9 percent chance of getting in. Expected number = 1.0 Expected Range = -0.0 - 2.0 Entrants with this # of tickets: 5 6 8 9 10 11 12 13 14 16 22 0 24 2507 Were chosen 0 times in this # of lotteries: Ω 330 126 53482 40512 787 420 18230 Λ 1584 795 Were chosen 1 times in this # of lotteries: 3035 18879 10834 946518 959488 60919 46755 981770 308 997493 998416 999205 Were chosen 2 times in this # of lotteries: 0 0 62576 242596 189435 0 0 938294 952825 0 32392 0 967300 Were chosen 3 times in this # of lotteries: 13965 3323 365478 738195 799605 0 0 0 0 0 0 Were chosen 4 times in this # of lotteries: 134808 56909 568887 0 0 Ω Ω Ω Ω Ω Ω 0 Were chosen 5 times in this # of lotteries: 373635 270299 0 0 0 0 0 Were chosen 6 times in this # of lotteries: 367237 447730 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Were chosen 7 times in this # of lotteries: 110355 221739 0 0 0 0 0 Were chosen 8 times in this # of lotteries: 0 0 0 0 0 0 0 0 Were chosen 9 times in this # of lotteries: Ω 0 Were chosen 10 times in this # of lotteries: