|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Trial ID | Bidder | LLM | Valuation | Bid | Payment | Winner? | Profit | Reason |
| 1 | A | GPT-4 | 80 | 64 |  |  |  | Bidding below valuation balances profit and chance of winning; standard strategy for 5 bidders is 4/5 of valuation |
| 1 | B | GPT-4 | 65 | 52 |  |  |  | I use the symmetric first-price equilibrium bid b = (n-1)/n · v for n=5, giving $52. |
| 1 | C | GPT-4 | 100 | 80 | 80 | Yes | 0 | b = (n-1)/n · v |
| 1 | D | GPT-4 | 26 | 20.8 |  |  |  | b = (n-1)/n · v |
| 1 | E | GPT-4 | 90 | 72 |  |  |  | b = (n-1)/n · v |
| 2 | A1 | DeepSeek | 88 | 70.4 |  |  |  | In the symmetric equilibrium, you should bid 4/5 of your resale value. |
| 2 | B1 | DeepSeek | 76 | 60.8 |  |  |  | b = (n-1)/n · v |
| 2 | C1 | DeepSeek | 99 | 79.2 | 79.2 | Yes | 19.8 | b = (n-1)/n · v |
| 2 | D1 | DeepSeek | 0.5 | 0.4 |  |  |  | b = (n-1)/n · v |
| 2 | E1 | DeepSeek | 50 | 40 |  |  |  | b = (n-1)/n · v |
| 3 | A2 | GPT-4 | 80 | 40 | 40 | yes | 40 | b = (n-1)/n · v |
| 3 | B2 | GPT-4 | 60 | 30 |  |  |  | b = (n-1)/n · v |
| 4 | A3 | DeepSeek | 80 | 40 | 40 | yes | 40 | b = (n-1)/n · v |
| 4 | B3 | DeepSeek | 60 | 30 |  |  |  | b = (n-1)/n · v |
| 5 | A4 | GPT-4 | 80 | 51 | 51 | yes | 29 | if Deepseek is playing the symmetric equilibrium b(v)=v/2b(v)=v/2b(v)=v/2 (or any bid ≤$50), $51 beats every possible equilibrium bid so you guarantee the win while still making a positive profit of $80 − $51 = $29. |
| 5 | B4 | DeepSeek | 81 | 40.5 |  |  |  | b = (n-1)/n · v |