**Daftar Perusahaan Penelitian**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Kode** | **Nama Perusahaan** | **Sampel** |
| 1 | ASII | Astra Internasional Tbk | Sampel 1 |
| 2 | AUTO | Astra Otoparts Tbk | Sampel 2 |
| 3 | GJTL | Gajah Tunggal Tbk | Sampel 3 |
| 4 | INDS | Indospring Tbk | Sampel 4 |
| 5 | PRAS | Prima Alloy Steel Universal Tbk | Sampel 5 |
| 6 | SMSM | Selamat Sempurna Tbk | Sampel 6 |

**Data Harga Saham (Y)**

|  |  |  |  |
| --- | --- | --- | --- |
| Nama Perusahaan | Tahun | Harga saham | |
| PT. Astra Internasional Tbk (ASII) | 2013 | Rp. 6800 | |
| 2014 | Rp. 7400 | |
| 2015 | Rp. 6000 | |
| 2016 | Rp. 8275 | |
| 2017 | Rp. 8300 | |
| PT. Astra Otoparts Tbk (AUTO) | 2013 | Rp. 3650 | |
| 2014 | Rp. 4200 | |
| 2015 | Rp. 1600 | |
| 2016 | Rp. 2050 | |
| 2017 | Rp. 2060 | |
| PT. Gajah Tunggal Tbk (GJTL) | 2013 | Rp. 1680 | |
| 2014 | Rp. 1425 | |
| 2015 | Rp. 530 | |
| 2016 | Rp. 1070 | |
| 2017 | Rp. 680 | |
| PT. Indospring Tbk (INDS) | 2013 | Rp. 2675 | |
| 2014 | Rp. 1600 | |
| 2015 | Rp. 350 | |
| 2016 | Rp. 810 | |
| 2017 | Rp. 1260 | |
|  | | |

**(Lanjutan)**

|  |  |  |
| --- | --- | --- |
| PT. Prima Alloy Steel Universal Tbk (PRAS) | 2013 | Rp. 185 |
| 2014 | Rp. 204 |
| 2015 | Rp. 125 |
| 2016 | Rp. 170 |
| 2017 | Rp. 220 |
| PT. Selamat Sempurna Tbk (SMSM) | 2013 | Rp. 3450 |
| 2014 | Rp. 4750 |
| 2015 | Rp. 4760 |
| 2016 | Rp. 980 |
| 2017 | Rp. 1255 |

Sumber: Olahan data hasil laporan keuangan

**Data *Debt to Equity Ratio* (X1)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nama Perusahaan | Tahun | Total Liabilities | Total Ekuitas | DER |
|
| PT. Astra Internasional Tbk (ASII) | 2013 | 107806000000000 | 106188000000000 | 1,015 |
| 2014 | 155705000000000 | 120324000000000 | 1,294 |
| 2015 | 118902000000000 | 126533000000000 | 0,939 |
| 2016 | 121949000000000 | 139906000000000 | 0,871 |
| 2017 | 139317000000000 | 156329000000000 | 0,891 |
| PT. Astra Otoparts Tbk (AUTO) | 2013 | 3058924000000 | 9558754000000 | 0,32 |
| 2014 | 4244369000000 | 10136557000000 | 0,418 |
| 2015 | 4195684000000 | 10143426000000 | 0,413 |
| 2016 | 4075716000000 | 10536558000000 | 0,386 |
| 2017 | 4003233000000 | 10759076000000 | 0,372 |
| PT. Gajah Tunggal Tbk (GJTL) | 2013 | 9626411000000 | 5724343000000 | 1,681 |
| 2014 | 10059605000000 | 5983292000000 | 1,681 |
| 2015 | 12115363000000 | 5394142000000 | 2,246 |
| 2016 | 12849602000000 | 5848177000000 | 2,197 |
| 2017 | 12501710000000 | 5689967000000 | 2,197 |

**(Lanjutan)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PT. Indospring Tbk (INDS) | 2013 | 443652749965 | 1752865614508 | 0,253 |
| 2014 | 454347526616 | 1828318551877 | 0,248 |
| 2015 | 634889428231 | 1919038917988 | 0,33 |
| 2016 | 409208624907 | 2068063877631 | 0,197 |
| 2017 | 289798419319 | 2144818918530 | 0,135 |
| PT. Prima Alloy Steel Universal Tbk (PRAS) | 2013 | 389182140905 | 406448113303 | 0,957 |
| 2014 | 601006310349 | 685821589456 | 0,876 |
| 2015 | 811177918367 | 720564133797 | 1,125 |
| 2016 | 903464665102 | 693001882560 | 1,303 |
| 2017 | 865838417894 | 676405303408 | 1,280 |
| PT. Selamat Sempurna Tbk (SMSM) | 2013 | 694304234869 | 1006799010307 | 0,689 |
| 2014 | 602558000000 | 1146837000000 | 0,525 |
| 2015 | 779860000000 | 1440248000000 | 0,541 |
| 2016 | 674685000000 | 1580055000000 | 0,427 |
| 2017 | 615157000000 | 1828184000000 | 0,336 |

Sumber: Olahan data hasil laporan keuangan

**Data *Earning Per Share* (X2)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nama Perusahaan | Tahun | Laba Bersih | Jumlah Saham Beredar | EPS |
| PT. Astra Internasional Tbk (ASII) | 2013 | 22297000000000 | 40483553140 | 550,766 |
| 2014 | 22125000000000 | 40483553140 | 546,518 |
| 2015 | 15613000000000 | 40483553140 | 385,662 |
| 2016 | 18302000000000 | 40483553140 | 452,084 |
| 2017 | 23165000000000 | 40483553140 | 572,207 |

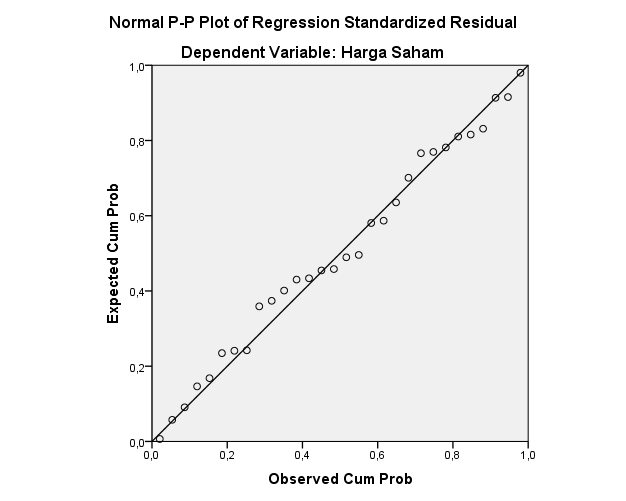
**(Lanjutan)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PT. Astra Otoparts Tbk (AUTO) | 2013 | 1058015000000 | 4819733000 | 219,517 |
| 2014 | 956409000000 | 4819733000 | 198,436 |
| 2015 | 322701000000 | 4819733000 | 66,954 |
| 2016 | 483421000000 | 4819733000 | 100,3 |
| 2017 | 547781000000 | 4819733000 | 113,653 |
| PT. Gajah Tunggal Tbk (GJTL) | 2013 | 120330000000 | 3484800000 | 34,529 |
| 2014 | 269868000000 | 3484800000 | 77,441 |
| 2015 | -313326000000 | 3484800000 | -89,912 |
| 2016 | 626561000000 | 3484800000 | 179,798 |
| 2017 | 45028000000 | 3484800000 | 12,921 |
| PT. Indospring Tbk (INDS) | 2013 | 147608449013 | 525000000000 | 0,281 |
| 2014 | 127657349869 | 656249710000 | 0,194 |
| 2015 | 1933819152 | 656249710000 | 0,002 |
| 2016 | 49556367334 | 656249710000 | 0,075 |
| 2017 | 113639539901 | 656249710000 | 0,173 |
| PT. Prima Alloy Steel Universal Tbk (PRAS) | 2013 | 13196739424 | 70104347800 | 0,188 |
| 2014 | 11340527608 | 70104347800 | 0,161 |
| 2015 | 6437333237 | 70104347800 | 0,091 |
| 2016 | -2690964318 | 70104347800 | -0,038 |
| 2017 | -3226268273 | 70104347800 | -0,046 |
| PT. Selamat Sempurna Tbk (SMSM) | 2013 | 338222792309 | 1439668860 | 234,93 |
| 2014 | 420436000000 | 1439668860 | 292,036 |
| 2015 | 461307000000 | 115119453 | 4007,202 |
| 2016 | 555388000000 | 5758675440 | 96,443 |
| 2017 | 502192000000 | 5758675440 | 87,206 |

**Hasil Analisis Regresi Linier Berganda**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | -74,981 | 576,001 |  | -,130 | ,897 |
| DER | 432,393 | 587,653 | ,076 | ,736 | ,468 |
| EPS | 12,397 | 1,497 | ,855 | 8,279 | ,000 |
| a. Dependent Variable: Harga Saham | | | | | | | |

**Hasil Uji Normalitas**



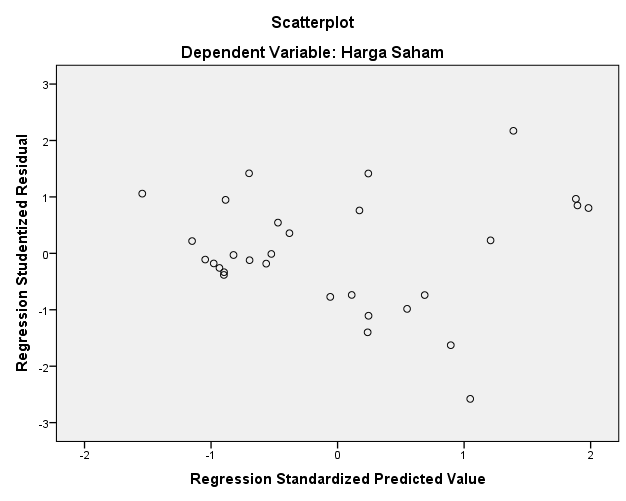
**Hasil Uji Normalitas (*Kolmogrov-Smirnov*)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **One-Sample Kolmogorov-Smirnov Test** | | | | |
|  | | Harga Saham | DER | EPS |
| N | | 30 | 30 | 30 |
| Normal Parametersa,b | Mean | 2240,1333 | ,7507 | 160,5660 |
| Std. Deviation | 2192,00936 | ,38528 | 151,19522 |
| Most Extreme Differences | Absolute | ,225 | ,175 | ,126 |
| Positive | ,225 | ,175 | ,126 |
| Negative | -,168 | -,101 | -,104 |
| Kolmogorov-Smirnov Z | | 1,235 | ,957 | ,689 |
| Asymp. Sig. (2-tailed) | | ,095 | ,319 | ,730 |
| a. Test distribution is Normal. | | | | |
| b. Calculated from data. | | | | |

**Hasil Uji Multikolinieritas**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | |
| Model | | Collinearity Statistics | |
| Tolerance | VIF |
| 1 | (Constant) |  |  |
| DER | ,979 | 1,022 |
| EPS | ,979 | 1,022 |
| a. Dependent Variable: Harga Saham | | | | |

**Hasil Uji Heteroskedastisitas**



**Hasil Uji Heteroskedastisitas dengan *Glesjer***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 361,823 | 314,922 |  | 1,149 | ,261 |
| DER | 188,825 | 321,293 | ,099 | ,588 | ,562 |
| EPS | 2,408 | ,819 | ,498 | 2,941 | ,070 |
| a. Dependent Variable: Abs\_Res | | | | | | |

**Hasil Uji Autokorelasi**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model Summaryb** | | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | ,713a | ,509 | ,471 | 968,18045 | 1,448 |
| a. Predictors: (Constant), Lag\_X2, Lag\_X1 | | | | | |
| b. Dependent Variable: Lag\_Y | | | | | |

**Hasil Uji Parsial (Uji T)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | -74,981 | 576,001 |  | -,130 | ,897 |
| DER | 432,393 | 587,653 | ,076 | ,736 | ,468 |
| EPS | 12,397 | 1,497 | ,855 | 8,279 | ,000 |
| a. Dependent Variable: Harga Saham | | | | | | |

**Hasil Uji Simultan (Uji F)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVAa** | | | | | | |
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 100053735,423 | 2 | 50026867,712 | 34,380 | ,000b |
| Residual | 39288510,044 | 27 | 1455130,002 |  |  |
| Total | 139342245,467 | 29 |  |  |  |
| a. Dependent Variable: Harga Saham | | | | | | |
| b. Predictors: (Constant), EPS, DER | | | | | | |

**Hasil Uji Koefisien Korelasi dan Koefisien Determinasi**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model Summary** | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | ,847a | ,718 | ,697 | 1206,28769 |
| a. Predictors: (Constant), EPS, DER | | | | |

**Tabel Durbin Watson (DW), α = 5%**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | k=1 | | k=2 | | k=3 | | k=4 | | k=5 | |
| n | dL | dU | dL | dU | dL | dU | dL | dU | dL | dU |
| 10 | 0.8791 | 1.3197 | 0.6972 | 1.6413 | 0.5253 | 2.0163 | 0.3760 | 2.4137 | 0.2427 | 2.8217 |
| 11 | 0.9273 | 1.3241 | 0.7580 | 1.6044 | 0.5948 | 1.9280 | 0.4441 | 2.2833 | 0.3155 | 2.6446 |
| 12 | 0.9708 | 1.3314 | 0.8122 | 1.5794 | 0.6577 | 1.8640 | 0.5120 | 2.1766 | 0.3796 | 2.5061 |
| 13 | 1.0097 | 1.3404 | 0.8612 | 1.5621 | 0.7147 | 1.8159 | 0.5745 | 2.0943 | 0.4445 | 2.3897 |
| 14 | 1.0450 | 1.3503 | 0.9054 | 1.5507 | 0.7667 | 1.7788 | 0.6321 | 2.0296 | 0.5052 | 2.2959 |
| 15 | 1.0770 | 1.3605 | 0.9455 | 1.5432 | 0.8140 | 1.7501 | 0.6852 | 1.9774 | 0.5620 | 2.2198 |
| 16 | 1.1062 | 1.3709 | 0.9820 | 1.5386 | 0.8572 | 1.7277 | 0.7340 | 1.9351 | 0.6150 | 2.1567 |
| 17 | 1.1330 | 1.3812 | 1.0154 | 1.5361 | 0.8968 | 1.7101 | 0.7790 | 1.9005 | 0.6641 | 2.1041 |
| 18 | 1.1576 | 1.3913 | 1.0461 | 1.5353 | 0.9331 | 1.6961 | 0.8204 | 1.8719 | 0.7098 | 2.0600 |
| 19 | 1.1804 | 1.4012 | 1.0743 | 1.5355 | 0.9666 | 1.6851 | 0.8588 | 1.8482 | 0.7523 | 2.0226 |
| 20 | 1.2015 | 1.4107 | 1.1004 | 1.5367 | 0.9976 | 1.6763 | 0.8943 | 1.8283 | 0.7918 | 1.9908 |
| 21 | 1.2212 | 1.4200 | 1.1246 | 1.5385 | 1.0262 | 1.6694 | 0.9272 | 1.8116 | 0.8286 | 1.9635 |
| 22 | 1.2395 | 1.4289 | 1.1471 | 1.5408 | 1.0529 | 1.6640 | 0.9578 | 1.7974 | 0.8629 | 1.9400 |
| 23 | 1.2567 | 1.4375 | 1.1682 | 1.5435 | 1.0778 | 1.6597 | 0.9864 | 1.7855 | 0.8949 | 1.9196 |
| 24 | 1.2728 | 1.4458 | 1.1878 | 1.5464 | 1.1010 | 1.6565 | 1.0131 | 1.7753 | 0.9249 | 1.9018 |
| 25 | 1.2879 | 1.4537 | 1.2063 | 1.5495 | 1.1228 | 1.6540 | 1.0381 | 1.7666 | 0.9530 | 1.8863 |
| 26 | 1.3022 | 1.4614 | 1.2236 | 1.5528 | 1.1432 | 1.6523 | 1.0616 | 1.7591 | 0.9794 | 1.8727 |
| 27 | 1.3157 | 1.4688 | 1.2399 | 1.5562 | 1.1624 | 1.6510 | 1.0836 | 1.7527 | 1.0042 | 1.8608 |
| 28 | 1.3284 | 1.4759 | 1.2553 | 1.5596 | 1.1805 | 1.6503 | 1.1044 | 1.7473 | 1.0276 | 1.8502 |
| 29 | 1.3405 | 1.4828 | 1.2699 | 1.5631 | 1.1976 | 1.6499 | 1.1241 | 1.7426 | 1.0497 | 1.8409 |
| 30 | 1.3520 | 1.4894 | 1.2837 | 1.5666 | 1.2138 | 1.6498 | 1.1426 | 1.7386 | 1.0706 | 1.8326 |
| 31 | 1.3630 | 1.4957 | 1.2969 | 1.5701 | 1.2292 | 1.6500 | 1.1602 | 1.7352 | 1.0904 | 1.8252 |
| 32 | 1.3734 | 1.5019 | 1.3093 | 1.5736 | 1.2437 | 1.6505 | 1.1769 | 1.7323 | 1.1092 | 1.8187 |
| 33 | 1.3834 | 1.5078 | 1.3212 | 1.5770 | 1.2576 | 1.6511 | 1.1927 | 1.7298 | 1.1270 | 1.8128 |
| 34 | 1.3929 | 1.5136 | 1.3325 | 1.5805 | 1.2707 | 1.6519 | 1.2078 | 1.7277 | 1.1439 | 1.8076 |
| 35 | 1.4019 | 1.5191 | 1.3433 | 1.5838 | 1.2833 | 1.6528 | 1.2221 | 1.7259 | 1.1601 | 1.8029 |
| 36 | 1.4107 | 1.5245 | 1.3537 | 1.5872 | 1.2953 | 1.6539 | 1.2358 | 1.7245 | 1.1755 | 1.7987 |
| 37 | 1.4190 | 1.5297 | 1.3635 | 1.5904 | 1.3068 | 1.6550 | 1.2489 | 1.7233 | 1.1901 | 1.7950 |
| 38 | 1.4270 | 1.5348 | 1.3730 | 1.5937 | 1.3177 | 1.6563 | 1.2614 | 1.7223 | 1.2042 | 1.7916 |
| 39 | 1.4347 | 1.5396 | 1.3821 | 1.5969 | 1.3283 | 1.6575 | 1.2734 | 1.7215 | 1.2176 | 1.7886 |
| 40 | 1.4421 | 1.5444 | 1.3908 | 1.6000 | 1.3384 | 1.6589 | 1.2848 | 1.7209 | 1.2305 | 1.7859 |
| 41 | 1.4493 | 1.5490 | 1.3992 | 1.6031 | 1.3480 | 1.6603 | 1.2958 | 1.7205 | 1.2428 | 1.7835 |
| 42 | 1.4562 | 1.5534 | 1.4073 | 1.6061 | 1.3573 | 1.6617 | 1.3064 | 1.7202 | 1.2546 | 1.7814 |
| 43 | 1.4628 | 1.5577 | 1.4151 | 1.6091 | 1.3663 | 1.6632 | 1.3166 | 1.7200 | 1.2660 | 1.7794 |
| 44 | 1.4692 | 1.5619 | 1.4226 | 1.6120 | 1.3749 | 1.6647 | 1.3263 | 1.7200 | 1.2769 | 1.7777 |
| 45 | 1.4754 | 1.5660 | 1.4298 | 1.6148 | 1.3832 | 1.6662 | 1.3357 | 1.7200 | 1.2874 | 1.7762 |
| 46 | 1.4814 | 1.5700 | 1.4368 | 1.6176 | 1.3912 | 1.6677 | 1.3448 | 1.7201 | 1.2976 | 1.7748 |
| 47 | 1.4872 | 1.5739 | 1.4435 | 1.6204 | 1.3989 | 1.6692 | 1.3535 | 1.7203 | 1.3073 | 1.7736 |
| 48 | 1.4928 | 1.5776 | 1.4500 | 1.6231 | 1.4064 | 1.6708 | 1.3619 | 1.7206 | 1.3167 | 1.7725 |
| 49 | 1.4982 | 1.5813 | 1.4564 | 1.6257 | 1.4136 | 1.6723 | 1.3701 | 1.7210 | 1.3258 | 1.7716 |
| 50 | 1.5035 | 1.5849 | 1.4625 | 1.6283 | 1.4206 | 1.6739 | 1.3779 | 1.7214 | 1.3346 | 1.7708 |

**(Lanjutan)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 51 | 1.5086 | 1.5884 | 1.4684 | 1.6309 | 1.4273 | 1.6754 | 1.3855 | 1.7218 | 1.3431 | 1.7701 |
| 52 | 1.5135 | 1.5917 | 1.4741 | 1.6334 | 1.4339 | 1.6769 | 1.3929 | 1.7223 | 1.3512 | 1.7694 |
| 53 | 1.5183 | 1.5951 | 1.4797 | 1.6359 | 1.4402 | 1.6785 | 1.4000 | 1.7228 | 1.3592 | 1.7689 |
| 54 | 1.5230 | 1.5983 | 1.4851 | 1.6383 | 1.4464 | 1.6800 | 1.4069 | 1.7234 | 1.3669 | 1.7684 |
| 55 | 1.5276 | 1.6014 | 1.4903 | 1.6406 | 1.4523 | 1.6815 | 1.4136 | 1.7240 | 1.3743 | 1.7681 |
| 56 | 1.5320 | 1.6045 | 1.4954 | 1.6430 | 1.4581 | 1.6830 | 1.4201 | 1.7246 | 1.3815 | 1.7678 |
| 57 | 1.5363 | 1.6075 | 1.5004 | 1.6452 | 1.4637 | 1.6845 | 1.4264 | 1.7253 | 1.3885 | 1.7675 |
| 58 | 1.5405 | 1.6105 | 1.5052 | 1.6475 | 1.4692 | 1.6860 | 1.4325 | 1.7259 | 1.3953 | 1.7673 |
| 59 | 1.5446 | 1.6134 | 1.5099 | 1.6497 | 1.4745 | 1.6875 | 1.4385 | 1.7266 | 1.4019 | 1.7672 |
| 60 | 1.5485 | 1.6162 | 1.5144 | 1.6518 | 1.4797 | 1.6889 | 1.4443 | 1.7274 | 1.4083 | 1.7671 |
| 61 | 1.5524 | 1.6189 | 1.5189 | 1.6540 | 1.4847 | 1.6904 | 1.4499 | 1.7281 | 1.4146 | 1.7671 |
| 62 | 1.5562 | 1.6216 | 1.5232 | 1.6561 | 1.4896 | 1.6918 | 1.4554 | 1.7288 | 1.4206 | 1.7671 |
| 63 | 1.5599 | 1.6243 | 1.5274 | 1.6581 | 1.4943 | 1.6932 | 1.4607 | 1.7296 | 1.4265 | 1.7671 |
| 64 | 1.5635 | 1.6268 | 1.5315 | 1.6601 | 1.4990 | 1.6946 | 1.4659 | 1.7303 | 1.4322 | 1.7672 |
| 65 | 1.5670 | 1.6294 | 1.5355 | 1.6621 | 1.5035 | 1.6960 | 1.4709 | 1.7311 | 1.4378 | 1.7673 |
| 66 | 1.5704 | 1.6318 | 1.5395 | 1.6640 | 1.5079 | 1.6974 | 1.4758 | 1.7319 | 1.4433 | 1.7675 |
| 67 | 1.5738 | 1.6343 | 1.5433 | 1.6660 | 1.5122 | 1.6988 | 1.4806 | 1.7327 | 1.4486 | 1.7676 |
| 68 | 1.5771 | 1.6367 | 1.5470 | 1.6678 | 1.5164 | 1.7001 | 1.4853 | 1.7335 | 1.4537 | 1.7678 |
| 69 | 1.5803 | 1.6390 | 1.5507 | 1.6697 | 1.5205 | 1.7015 | 1.4899 | 1.7343 | 1.4588 | 1.7680 |
| 70 | 1.5834 | 1.6413 | 1.5542 | 1.6715 | 1.5245 | 1.7028 | 1.4943 | 1.7351 | 1.4637 | 1.7683 |

**Tabel F**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **df untuk**  **penyebut (N2)** | **df untuk pembilang**  **(N1)** | | | | | | | | | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **1** | 161 | 199 | 216 | 225 | 230 | 234 | 237 | 239 | 241 | 242 |
| **2** | 18.51 | 19.00 | 19.16 | 19.25 | 19.30 | 19.33 | 19.35 | 19.37 | 19.38 | 19.40 |
| **3** | 10.13 | 9.55 | 9.28 | 9.12 | 9.01 | 8.94 | 8.89 | 8.85 | 8.81 | 8.79 |
| **4** | 7.71 | 6.94 | 6.59 | 6.39 | 6.26 | 6.16 | 6.09 | 6.04 | 6.00 | 5.96 |
| **5** | 6.61 | 5.79 | 5.41 | 5.19 | 5.05 | 4.95 | 4.88 | 4.82 | 4.77 | 4.74 |
| **6** | 5.99 | 5.14 | 4.76 | 4.53 | 4.39 | 4.28 | 4.21 | 4.15 | 4.10 | 4.06 |
| **7** | 5.59 | 4.74 | 4.35 | 4.12 | 3.97 | 3.87 | 3.79 | 3.73 | 3.68 | 3.64 |
| **8** | 5.32 | 4.46 | 4.07 | 3.84 | 3.69 | 3.58 | 3.50 | 3.44 | 3.39 | 3.35 |
| **9** | 5.12 | 4.26 | 3.86 | 3.63 | 3.48 | 3.37 | 3.29 | 3.23 | 3.18 | 3.14 |
| **10** | 4.96 | 4.10 | 3.71 | 3.48 | 3.33 | 3.22 | 3.14 | 3.07 | 3.02 | 2.98 |
| **11** | 4.84 | 3.98 | 3.59 | 3.36 | 3.20 | 3.09 | 3.01 | 2.95 | 2.90 | 2.85 |
| **12** | 4.75 | 3.89 | 3.49 | 3.26 | 3.11 | 3.00 | 2.91 | 2.85 | 2.80 | 2.75 |
| **13** | 4.67 | 3.81 | 3.41 | 3.18 | 3.03 | 2.92 | 2.83 | 2.77 | 2.71 | 2.67 |
| **14** | 4.60 | 3.74 | 3.34 | 3.11 | 2.96 | 2.85 | 2.76 | 2.70 | 2.65 | 2.60 |
| **15** | 4.54 | 3.68 | 3.29 | 3.06 | 2.90 | 2.79 | 2.71 | 2.64 | 2.59 | 2.54 |
| **16** | 4.49 | 3.63 | 3.24 | 3.01 | 2.85 | 2.74 | 2.66 | 2.59 | 2.54 | 2.49 |
| **17** | 4.45 | 3.59 | 3.20 | 2.96 | 2.81 | 2.70 | 2.61 | 2.55 | 2.49 | 2.45 |
| **18** | 4.41 | 3.55 | 3.16 | 2.93 | 2.77 | 2.66 | 2.58 | 2.51 | 2.46 | 2.41 |
| **19** | 4.38 | 3.52 | 3.13 | 2.90 | 2.74 | 2.63 | 2.54 | 2.48 | 2.42 | 2.38 |
| **20** | 4.35 | 3.49 | 3.10 | 2.87 | 2.71 | 2.60 | 2.51 | 2.45 | 2.39 | 2.35 |
| **21** | 4.32 | 3.47 | 3.07 | 2.84 | 2.68 | 2.57 | 2.49 | 2.42 | 2.37 | 2.32 |
| **22** | 4.30 | 3.44 | 3.05 | 2.82 | 2.66 | 2.55 | 2.46 | 2.40 | 2.34 | 2.30 |
| **23** | 4.28 | 3.42 | 3.03 | 2.80 | 2.64 | 2.53 | 2.44 | 2.37 | 2.32 | 2.27 |
| **24** | 4.26 | 3.40 | 3.01 | 2.78 | 2.62 | 2.51 | 2.42 | 2.36 | 2.30 | 2.25 |
| **25** | 4.24 | 3.39 | 2.99 | 2.76 | 2.60 | 2.49 | 2.40 | 2.34 | 2.28 | 2.24 |
| **26** | 4.23 | 3.37 | 2.98 | 2.74 | 2.59 | 2.47 | 2.39 | 2.32 | 2.27 | 2.22 |
| **27** | 4.21 | 3.35 | 2.96 | 2.73 | 2.57 | 2.46 | 2.37 | 2.31 | 2.25 | 2.20 |
| **28** | 4.20 | 3.34 | 2.95 | 2.71 | 2.56 | 2.45 | 2.36 | 2.29 | 2.24 | 2.19 |
| **29** | 4.18 | 3.33 | 2.93 | 2.70 | 2.55 | 2.43 | 2.35 | 2.28 | 2.22 | 2.18 |
| **30** | 4.17 | 3.32 | 2.92 | 2.69 | 2.53 | 2.42 | 2.33 | 2.27 | 2.21 | 2.16 |
| **31** | 4.16 | 3.30 | 2.91 | 2.68 | 2.52 | 2.41 | 2.32 | 2.25 | 2.20 | 2.15 |
| **32** | 4.15 | 3.29 | 2.90 | 2.67 | 2.51 | 2.40 | 2.31 | 2.24 | 2.19 | 2.14 |
| **33** | 4.14 | 3.28 | 2.89 | 2.66 | 2.50 | 2.39 | 2.30 | 2.23 | 2.18 | 2.13 |
| **34** | 4.13 | 3.28 | 2.88 | 2.65 | 2.49 | 2.38 | 2.29 | 2.23 | 2.17 | 2.12 |
| **35** | 4.12 | 3.27 | 2.87 | 2.64 | 2.49 | 2.37 | 2.29 | 2.22 | 2.16 | 2.11 |
| **36** | 4.11 | 3.26 | 2.87 | 2.63 | 2.48 | 2.36 | 2.28 | 2.21 | 2.15 | 2.11 |
| **37** | 4.11 | 3.25 | 2.86 | 2.63 | 2.47 | 2.36 | 2.27 | 2.20 | 2.14 | 2.10 |
| **38** | 4.10 | 3.24 | 2.85 | 2.62 | 2.46 | 2.35 | 2.26 | 2.19 | 2.14 | 2.09 |
| **39** | 4.09 | 3.24 | 2.85 | 2.61 | 2.46 | 2.34 | 2.26 | 2.19 | 2.13 | 2.08 |
| **40** | 4.08 | 3.23 | 2.84 | 2.61 | 2.45 | 2.34 | 2.25 | 2.18 | 2.12 | 2.08 |
| **41** | 4.08 | 3.23 | 2.83 | 2.60 | 2.44 | 2.33 | 2.24 | 2.17 | 2.12 | 2.07 |
| **42** | 4.07 | 3.22 | 2.83 | 2.59 | 2.44 | 2.32 | 2.24 | 2.17 | 2.11 | 2.06 |
| **43** | 4.07 | 3.21 | 2.82 | 2.59 | 2.43 | 2.32 | 2.23 | 2.16 | 2.11 | 2.06 |
| **44** | 4.06 | 3.21 | 2.82 | 2.58 | 2.43 | 2.31 | 2.23 | 2.16 | 2.10 | 2.05 |
| **45** | 4.06 | 3.20 | 2.81 | 2.58 | 2.42 | 2.31 | 2.22 | 2.15 | 2.10 | 2.05 |

**(Lanjutan)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **df untuk**  **penyebut** | **df untuk pembilang**  **(N1)** | | | | | | | | | |
| **(N2)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **46** | 4.05 | 3.20 | 2.81 | 2.57 | 2.42 | 2.30 | 2.22 | 2.15 | 2.09 | 2.04 |
| **47** | 4.05 | 3.20 | 2.80 | 2.57 | 2.41 | 2.30 | 2.21 | 2.14 | 2.09 | 2.04 |
| **48** | 4.04 | 3.19 | 2.80 | 2.57 | 2.41 | 2.29 | 2.21 | 2.14 | 2.08 | 2.03 |
| **49** | 4.04 | 3.19 | 2.79 | 2.56 | 2.40 | 2.29 | 2.20 | 2.13 | 2.08 | 2.03 |
| **50** | 4.03 | 3.18 | 2.79 | 2.56 | 2.40 | 2.29 | 2.20 | 2.13 | 2.07 | 2.03 |
| **51** | 4.03 | 3.18 | 2.79 | 2.55 | 2.40 | 2.28 | 2.20 | 2.13 | 2.07 | 2.02 |
| **52** | 4.03 | 3.18 | 2.78 | 2.55 | 2.39 | 2.28 | 2.19 | 2.12 | 2.07 | 2.02 |
| **53** | 4.02 | 3.17 | 2.78 | 2.55 | 2.39 | 2.28 | 2.19 | 2.12 | 2.06 | 2.01 |
| **54** | 4.02 | 3.17 | 2.78 | 2.54 | 2.39 | 2.27 | 2.18 | 2.12 | 2.06 | 2.01 |
| **55** | 4.02 | 3.16 | 2.77 | 2.54 | 2.38 | 2.27 | 2.18 | 2.11 | 2.06 | 2.01 |
| **56** | 4.01 | 3.16 | 2.77 | 2.54 | 2.38 | 2.27 | 2.18 | 2.11 | 2.05 | 2.00 |
| **57** | 4.01 | 3.16 | 2.77 | 2.53 | 2.38 | 2.26 | 2.18 | 2.11 | 2.05 | 2.00 |
| **58** | 4.01 | 3.16 | 2.76 | 2.53 | 2.37 | 2.26 | 2.17 | 2.10 | 2.05 | 2.00 |
| **59** | 4.00 | 3.15 | 2.76 | 2.53 | 2.37 | 2.26 | 2.17 | 2.10 | 2.04 | 2.00 |
| **60** | 4.00 | 3.15 | 2.76 | 2.53 | 2.37 | 2.25 | 2.17 | 2.10 | 2.04 | 1.99 |
| **61** | 4.00 | 3.15 | 2.76 | 2.52 | 2.37 | 2.25 | 2.16 | 2.09 | 2.04 | 1.99 |
| **62** | 4.00 | 3.15 | 2.75 | 2.52 | 2.36 | 2.25 | 2.16 | 2.09 | 2.03 | 1.99 |
| **63** | 3.99 | 3.14 | 2.75 | 2.52 | 2.36 | 2.25 | 2.16 | 2.09 | 2.03 | 1.98 |
| **64** | 3.99 | 3.14 | 2.75 | 2.52 | 2.36 | 2.24 | 2.16 | 2.09 | 2.03 | 1.98 |
| **65** | 3.99 | 3.14 | 2.75 | 2.51 | 2.36 | 2.24 | 2.15 | 2.08 | 2.03 | 1.98 |
| **66** | 3.99 | 3.14 | 2.74 | 2.51 | 2.35 | 2.24 | 2.15 | 2.08 | 2.03 | 1.98 |
| **67** | 3.98 | 3.13 | 2.74 | 2.51 | 2.35 | 2.24 | 2.15 | 2.08 | 2.02 | 1.98 |
| **68** | 3.98 | 3.13 | 2.74 | 2.51 | 2.35 | 2.24 | 2.15 | 2.08 | 2.02 | 1.97 |
| **69** | 3.98 | 3.13 | 2.74 | 2.50 | 2.35 | 2.23 | 2.15 | 2.08 | 2.02 | 1.97 |
| **70** | 3.98 | 3.13 | 2.74 | 2.50 | 2.35 | 2.23 | 2.14 | 2.07 | 2.02 | 1.97 |

**Tabel t**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pr** | **0.25** | **0.10** | **0.05** | **0.025** | **0.01** | **0.005** | **0.001** |
| **df** | **0.50** | **0.20** | **0.10** | **0.050** | **0.02** | **0.010** | **0.002** |
| **1** | 1.00000 | 3.07768 | 6.31375 | 12.70620 | 31.82052 | 63.65674 | 318.30884 |
| **2** | 0.81650 | 1.88562 | 2.91999 | 4.30265 | 6.96456 | 9.92484 | 22.32712 |
| **3** | 0.76489 | 1.63774 | 2.35336 | 3.18245 | 4.54070 | 5.84091 | 10.21453 |
| **4** | 0.74070 | 1.53321 | 2.13185 | 2.77645 | 3.74695 | 4.60409 | 7.17318 |
| **5** | 0.72669 | 1.47588 | 2.01505 | 2.57058 | 3.36493 | 4.03214 | 5.89343 |
| **6** | 0.71756 | 1.43976 | 1.94318 | 2.44691 | 3.14267 | 3.70743 | 5.20763 |
| **7** | 0.71114 | 1.41492 | 1.89458 | 2.36462 | 2.99795 | 3.49948 | 4.78529 |
| **8** | 0.70639 | 1.39682 | 1.85955 | 2.30600 | 2.89646 | 3.35539 | 4.50079 |
| **9** | 0.70272 | 1.38303 | 1.83311 | 2.26216 | 2.82144 | 3.24984 | 4.29681 |
| **10** | 0.69981 | 1.37218 | 1.81246 | 2.22814 | 2.76377 | 3.16927 | 4.14370 |
| **11** | 0.69745 | 1.36343 | 1.79588 | 2.20099 | 2.71808 | 3.10581 | 4.02470 |
| **12** | 0.69548 | 1.35622 | 1.78229 | 2.17881 | 2.68100 | 3.05454 | 3.92963 |
| **13** | 0.69383 | 1.35017 | 1.77093 | 2.16037 | 2.65031 | 3.01228 | 3.85198 |
| **14** | 0.69242 | 1.34503 | 1.76131 | 2.14479 | 2.62449 | 2.97684 | 3.78739 |
| **15** | 0.69120 | 1.34061 | 1.75305 | 2.13145 | 2.60248 | 2.94671 | 3.73283 |
| **16** | 0.69013 | 1.33676 | 1.74588 | 2.11991 | 2.58349 | 2.92078 | 3.68615 |
| **17** | 0.68920 | 1.33338 | 1.73961 | 2.10982 | 2.56693 | 2.89823 | 3.64577 |
| **18** | 0.68836 | 1.33039 | 1.73406 | 2.10092 | 2.55238 | 2.87844 | 3.61048 |
| **19** | 0.68762 | 1.32773 | 1.72913 | 2.09302 | 2.53948 | 2.86093 | 3.57940 |
| **20** | 0.68695 | 1.32534 | 1.72472 | 2.08596 | 2.52798 | 2.84534 | 3.55181 |
| **21** | 0.68635 | 1.32319 | 1.72074 | 2.07961 | 2.51765 | 2.83136 | 3.52715 |
| **22** | 0.68581 | 1.32124 | 1.71714 | 2.07387 | 2.50832 | 2.81876 | 3.50499 |
| **23** | 0.68531 | 1.31946 | 1.71387 | 2.06866 | 2.49987 | 2.80734 | 3.48496 |
| **24** | 0.68485 | 1.31784 | 1.71088 | 2.06390 | 2.49216 | 2.79694 | 3.46678 |
| **25** | 0.68443 | 1.31635 | 1.70814 | 2.05954 | 2.48511 | 2.78744 | 3.45019 |
| **26** | 0.68404 | 1.31497 | 1.70562 | 2.05553 | 2.47863 | 2.77871 | 3.43500 |
| **27** | 0.68368 | 1.31370 | 1.70329 | 2.05183 | 2.47266 | 2.77068 | 3.42103 |
| **28** | 0.68335 | 1.31253 | 1.70113 | 2.04841 | 2.46714 | 2.76326 | 3.40816 |
| **29** | 0.68304 | 1.31143 | 1.69913 | 2.04523 | 2.46202 | 2.75639 | 3.39624 |
| **30** | 0.68276 | 1.31042 | 1.69726 | 2.04227 | 2.45726 | 2.75000 | 3.38518 |
| **31** | 0.68249 | 1.30946 | 1.69552 | 2.03951 | 2.45282 | 2.74404 | 3.37490 |
| **32** | 0.68223 | 1.30857 | 1.69389 | 2.03693 | 2.44868 | 2.73848 | 3.36531 |
| **33** | 0.68200 | 1.30774 | 1.69236 | 2.03452 | 2.44479 | 2.73328 | 3.35634 |
| **34** | 0.68177 | 1.30695 | 1.69092 | 2.03224 | 2.44115 | 2.72839 | 3.34793 |
| **35** | 0.68156 | 1.30621 | 1.68957 | 2.03011 | 2.43772 | 2.72381 | 3.34005 |
| **36** | 0.68137 | 1.30551 | 1.68830 | 2.02809 | 2.43449 | 2.71948 | 3.33262 |
| **37** | 0.68118 | 1.30485 | 1.68709 | 2.02619 | 2.43145 | 2.71541 | 3.32563 |
| **38** | 0.68100 | 1.30423 | 1.68595 | 2.02439 | 2.42857 | 2.71156 | 3.31903 |
| **39** | 0.68083 | 1.30364 | 1.68488 | 2.02269 | 2.42584 | 2.70791 | 3.31279 |
| **40** | 0.68067 | 1.30308 | 1.68385 | 2.02108 | 2.42326 | 2.70446 | 3.30688 |

**(Lanjutan)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pr** | **0.25** | **0.10** | **0.05** | **0.025** | **0.01** | **0.005** | **0.001** |
| **Df** | **0.50** | **0.20** | **0.10** | **0.050** | **0.02** | **0.010** | **0.002** |
|  |  |  |  |  |  |  |  |
| **41** | 0.68052 | 1.30254 | 1.68288 | 2.01954 | 2.42080 | 2.70118 | 3.30127 |
| **42** | 0.68038 | 1.30204 | 1.68195 | 2.01808 | 2.41847 | 2.69807 | 3.29595 |
| **43** | 0.68024 | 1.30155 | 1.68107 | 2.01669 | 2.41625 | 2.69510 | 3.29089 |
| **44** | 0.68011 | 1.30109 | 1.68023 | 2.01537 | 2.41413 | 2.69228 | 3.28607 |
| **45** | 0.67998 | 1.30065 | 1.67943 | 2.01410 | 2.41212 | 2.68959 | 3.28148 |
| **46** | 0.67986 | 1.30023 | 1.67866 | 2.01290 | 2.41019 | 2.68701 | 3.27710 |
| **47** | 0.67975 | 1.29982 | 1.67793 | 2.01174 | 2.40835 | 2.68456 | 3.27291 |
| **48** | 0.67964 | 1.29944 | 1.67722 | 2.01063 | 2.40658 | 2.68220 | 3.26891 |
| **49** | 0.67953 | 1.29907 | 1.67655 | 2.00958 | 2.40489 | 2.67995 | 3.26508 |
| **50** | 0.67933 | 1.29871 | 1.67591 | 2.00856 | 2.40327 | 2.67779 | 3.26141 |
| **51** | 0.67924 | 1.29837 | 1.67528 | 2.00758 | 2.40172 | 2.67572 | 3.25789 |
| **52** | 0.67915 | 1.29805 | 1.67469 | 2.00665 | 2.40022 | 2.67373 | 3.25451 |
| **53** | 0.67906 | 1.29773 | 1.67412 | 2.00575 | 2.39879 | 2.67182 | 3.25127 |
| **54** | 0.67906 | 1.29743 | 1.67356 | 2.00488 | 2.39741 | 2.66998 | 3.24815 |
| **55** | 0.67898 | 1.29713 | 1.67303 | 2.00404 | 2.39608 | 2.66822 | 3.24515 |
| **56** | 0.67890 | 1.29685 | 1.67252 | 2.00324 | 2.39480 | 2.66651 | 3.24226 |
| **57** | 0.67882 | 1.29658 | 1.67203 | 2.00247 | 2.39357 | 2.66487 | 3.23948 |
| **58** | 0.67874 | 1.29632 | 1.67155 | 2.00172 | 2.39238 | 2.66329 | 3.23680 |
| **59** | 0.67867 | 1.29607 | 1.67109 | 2.00100 | 2.39123 | 2.66176 | 3.23421 |
| **60** | 0.67860 | 1.29582 | 1.67065 | 2.00030 | 2.39012 | 2.66028 | 3.23171 |
| **61** | 0.67853 | 1.29558 | 1.67022 | 1.99962 | 2.38905 | 2.65886 | 3.22930 |
| **62** | 0.67847 | 1.29536 | 1.66980 | 1.99897 | 2.38801 | 2.65748 | 3.22696 |
| **63** | 0.67840 | 1.29513 | 1.66940 | 1.99834 | 2.38701 | 2.65615 | 3.22471 |
| **64** | 0.67834 | 1.29492 | 1.66901 | 1.99773 | 2.38604 | 2.65485 | 3.22253 |
| **65** | 0.67828 | 1.29471 | 1.66864 | 1.99714 | 2.38510 | 2.65360 | 3.22041 |
| **66** | 0.67823 | 1.29451 | 1.66827 | 1.99656 | 2.38419 | 2.65239 | 3.21837 |
| **67** | 0.67817 | 1.29432 | 1.66792 | 1.99601 | 2.38330 | 2.65122 | 3.21639 |
| **68** | 0.67811 | 1.29413 | 1.66757 | 1.99547 | 2.38245 | 2.65008 | 3.21446 |
| **69** | 0,67806 | 1.29394 | 1.66724 | 1.99495 | 2.38161 | 2.64898 | 3.21260 |
| **70** | 0.67801 | 1.29376 | 1.66691 | 1.99444 | 2.38081 | 2.64790 | 3.21079 |