**PERHITUNGAN NILAI UJI MEAN TERHADAP DATA**

**HASIL PRE-TEST DAN POST-TEST**

1. **STANDAR DEVIASI**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Posttest (*x*)** | **Pretest (*y*)** | **(*x*)2** | **(*y*)2** | **(*x*) . (*y*)** |
| 1 | 95 | 75 | 9025 | 5625 | 28500 |
| 2 | 85 | 55 | 7225 | 3025 | 18700 |
| 3 | 90 | 60 | 8100 | 3600 | 21600 |
| 4 | 85 | 55 | 7225 | 3025 | 18700 |
| 5 | 80 | 50 | 6400 | 2500 | 17600 |
| 6 | 80 | 50 | 6400 | 2500 | 17600 |
| 7 | 95 | 75 | 9025 | 5625 | 28500 |
| 8 | 90 | 80 | 8100 | 6400 | 28800 |
| 9 | 95 | 80 | 9025 | 6400 | 30400 |
| 10 | 90 | 60 | 8100 | 3600 | 21600 |
| 11 | 85 | 80 | 7225 | 6400 | 27200 |
| 12 | 80 | 60 | 6400 | 3600 | 19200 |
| 13 | 90 | 45 | 8100 | 2025 | 16200 |
| 14 | 95 | 75 | 9025 | 5625 | 28500 |
| 15 | 70 | 40 | 4900 | 1600 | 11200 |
| 16 | 85 | 30 | 7225 | 900 | 10200 |
| 17 | 90 | 45 | 8100 | 2025 | 16200 |
| 18 | 95 | 50 | 9025 | 2500 | 19000 |
| 19 | 90 | 60 | 8100 | 3600 | 21600 |
| 20 | 80 | 80 | 6400 | 6400 | 25600 |
| 21 | 80 | 60 | 6400 | 3600 | 19200 |
| 22 | 80 | 60 | 6400 | 3600 | 19200 |
| 23 | 85 | 75 | 7225 | 5625 | 25500 |
| 24 | 90 | 80 | 8100 | 6400 | 28800 |
| 25 | 70 | 80 | 4900 | 6400 | 22400 |
| 26 | 85 | 55 | 7225 | 3025 | 18700 |
| 27 | 95 | 65 | 9025 | 4225 | 24700 |
| 28 | 80 | 60 | 6400 | 3600 | 19200 |
| 29 | 90 | 75 | 8100 | 5625 | 27000 |
| 30 | 75 | 50 | 5625 | 2500 | 15000 |
| 31 | 80 | 75 | 6400 | 5625 | 24000 |
| 32 | 70 | 65 | 4900 | 4225 | 18200 |
| 33 | 90 | 80 | 8100 | 6400 | 28800 |
| 34 | 80 | 50 | 6400 | 2500 | 16000 |
|  | **∑**(*x*) 2895 | ∑(*y*) 2135 | **∑**(*x*) 248325  | ∑(*y*) 140325  | ∑(*x*) . (*y*) 733600 |
| 85,14 | 62,80 | 7303,6 | 4127,2 | 21576,47 |

1. Mencari mean post test (x) dan Pretest (y) dengan rumus:

a*. Mx*= $\frac{\sum\_{}^{}X}{N}$

 = $\frac{2895}{34}$

 = 85,14

b. *My*= $\frac{\sum\_{}^{}Y}{N}$

 = $\frac{2135}{34}$

 = 62,80

1. Mencari Standar deviasi kuadrat (*x*) dan (*y*)
2. SDX2 = - Mx2

 =$ \frac{248325 }{34}$ − (85,14)2

 = 7303,67 – 7248,81

 = 54,86

1. SDY2= - My2

 = $\frac{140325}{34}$ - (62,80)2

= 4127,20 – 3943,84

 = 183,36

1. Mencari standar deviasi mean kuadrat dari pretest dan posttest dengan rumus:
2. SD2Mx = 

|  |  |
| --- | --- |
| = $\frac{54,86}{34-1}$ = $\frac{54,86}{33}$ = 1,66 1. SD2MY =

 = $\frac{183,36}{34-1}$ = $\frac{183,36}{33}$ = 5,55 |  |

1. Mencari SDbm dengan rumus

 SDbm = **** SD2Mx +SD2MY

 = $\sqrt{1,66+}5,55$

 = $\sqrt{7,21}$

 = 2,68

1. Selanjutnya sudah dapat digunakan rumus t – test
2. t – test = 

 = $\frac{85,14-62,8}{2,68}$

 = $\frac{22,34}{2,68}$

 = 8,33

1. d.b = (Nx+ Ny) – 2

 = (34 + 34) – 2

 = 68 – 2

 = 66