## HRT432 Jeoit Modelleme 2021-2022 BAHAR 10 Nisan - 12 Mayıs 2022 - 17:00

## YIL İÇİ ÖDEVİ

Sonuçlarınızı aşağıda verilen formatla, istenilen incelikte, istenilen tipte (reel ve üstel) ve istenilen yazınız.

 $a_{GRS80} = 6378137.00000 \text{ m}$   $b_{GRS80} = 6356752.31414 \text{ m}$ 

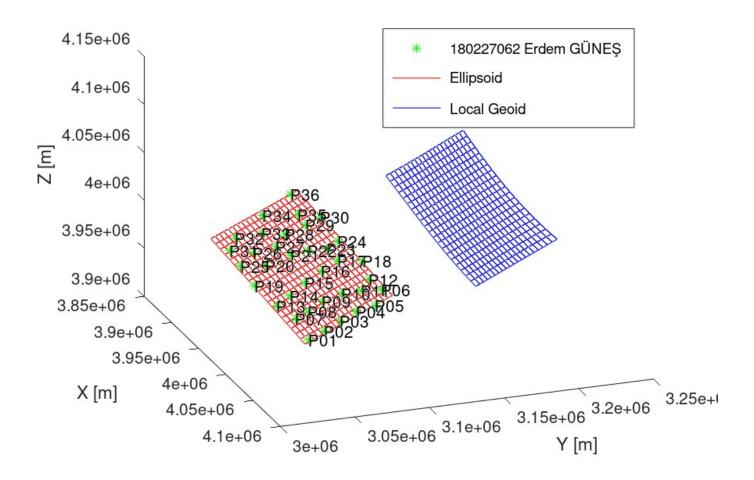
| (1)       | Geometrik Merkez Koordinatları B°, L°, h[m] |            |                           |            |                           |            |                           |        |
|-----------|---|------------|---------------------------|------------|---------------------------|------------|---------------------------|--------|
| Jeodezik  | B°  | 38.58      | L°                        | 38.07      | $L_0^{\circ}$             | 39.00      | $\mathbf{h}_{\mathbf{m}}$ | 995.50 |
| Kartezyen | $\mathbf{X}_{\mathbf{m}}$                   | 3931182.99 | $\mathbf{Y}_{\mathbf{m}}$ | 3078682.82 | $\mathbf{Z}_{\mathrm{m}}$ | 3956396.06 | $\mathbf{H}_{\mathbf{m}}$ | 964.00 |
| 3° UTM    | $\mathbf{X}_{\mathbf{m}}$                   | 4272112.00 | $\mathbf{y}_{\mathbf{m}}$ | 418617.90  | $L_0^{ o}$                | 39.00      | $N_{\rm m}$               | 31.50  |

## $\mathbf{a}_{(26,0.975)} = \mathbf{2.0555}$

| (                     | 2)      | Yüzey Parametreleri & Anlamlılık Testleri |   |         |                |   |      |  |
|-----------------------|---------|---|---|---------|----------------|---|------|--|
|                       |         | δ   | ± | σδ      | T <sub>δ</sub> |   | t    |  |
| $\sigma_0$            | [m]     |   | ± | 0.2670  |                |   |      |  |
| $\mathbf{a}_0$        | [m]     | 31.1136                                   | ± | 0.0911  | 341.69         |   |      |  |
| $\mathbf{a}_1$        | [m/km]  | 1.8e-02                                   | ± | 3.8e-03 | 4.80           |   |      |  |
| $\mathbf{a_2}$        | [m/km]  | -3.1e-02                                  | ± | 4.5e-03 | 6.87           |   |      |  |
| $\mathbf{a_3}$        | [m/km²] | -5.7e-05                                  | ± | 4.0e-05 | 1.42           | < | 2.06 |  |
| $\mathbf{a}_4$        | [m/km²] | 2.4e-04                                   | ± | 4.5e-05 | 5.37           |   |      |  |
| $\mathbf{a}_{5}$      | [m/km²] | 9.6e-05                                   | ± | 5.1e-05 | 1.90           | < | 2.06 |  |
| $\mathbf{a}_{6}$      | [m/km³] | -2.5e-06                                  | ± | 1.6e-06 | 1.59           | < | 2.06 |  |
| <b>a</b> <sub>7</sub> | [m/km³] | 1.5e-06                                   | ± | 1.5e-06 | 1.04           | < | 2.06 |  |
| $\mathbf{a}_{8}$      | [m/km³] | -1.3e-06                                  | ± | 1.5e-06 | 0.84           | < | 2.06 |  |
| $\mathbf{a}_9$        | [m/km³] | 3.4e-06                                   | ± | 2.0e-06 | 1.70           | < | 2.06 |  |

 $\mathbf{a}_{(26,0.975)} = \mathbf{2.0555}$ 

| (3)     |       |      | EKK Parame | etreleri | İle Kestirim                        |
|---------|-------|------|------------|----------|-------------------------------------|
| ( x ,   | у)    | [km] | N [m]      | ±        | $\sigma_{\scriptscriptstyle N}$ [m] |
| ( +10 , | -10 ) | [km] | 31.6366    | ±        | 0.1023                              |
| ( -10 , | +10 ) | [km] | 30.6691    | ±        | 0.1057                              |
| ( +50 , | +50 ) | [km] | 31.3237    | ±        | 0.2289                              |
| ( -50 , | -50 ) | [km] | 32.2946    | ±        | 0.2314                              |



**Şekil – 1.** (view: 70,30 scale:1.00, 1.00) **Veri noktaları** (180227062 ERDEM GÜNEŞ), orijinal Kartezyen koordinatlara göre, Elipsoit (Ellipsoid) B,L,h=0.0 ile hesaplanan Kartezyen koordinatlara göre, Jeoit (Geoid) B,L,h=5000\*N ile hesaplanan Kartezyen koordinatlara göre, çizilmiştir.