

Μαθηματικά Γ1 Παπαδάκης

Πρόταση μελέτης

1. Συναρτήσεις (I): Έννοια – Πεδίο ορισμού - Τιμές

1.1 έως 1.13, 1.14 δ), 1.15 β, γ, 1.16, 1.17, 1.18 β), 1.21 γ), 1.23, 1.24, **1.27, 1.28**, 1.29, 1.31, 1.33, 1.35, 1.36, 1.41, **1.43, 1.44**, 1.47, 1.49, 1.51, 1.53, 1.54, 1.55, 1.56

2. Συναρτήσεις (II): Γραφική παράσταση – Προβλήματα

2.1 έως 2.13, 2.15, 2.16, 2.20, 2.21, 2.24, 2.28, 2.33, 2.34, **2.37**, 2.38, 2.43, 2.44, **2.46**, 2.50, **2.51, 2.52**, 2.56, 2.57, 2.59, 2.61, **2.64**, 2.69, 2.70, 2.73, 2.74, 2.76, 2.77, 2.79, 2.80, 2.82, 2.83, **2.85, 2.88, 2.89, 2.91, 2.92, 2.93, 2.94, 2.95, 2.96**, 2.97, 2.101, 2.104, 2.106, **2.108, 2.113, 2.114**, 2.116, 2.117, 2.118.

3. Συναρτήσεις (III): Ισότητα – Πράξεις – Σύνθεση συναρτήσεων

3.1 έως 3.8, 3.9 γ, ε, 3.12, 3.14, 3.21, 3.23, 3.25, 3.26, 3.29, 3.30, 3.32, 3.34, 3.39, 3.42, 3.45, 3.46, 3.47, 3.50, 3.51, 3.56, 3.60, 3.66, **3.72, 3.73, 3.74, 3.75, 3.76**, 3.80, 3.81, **3.83**, 3.84, 3.87, 3.88, **3.90**, 3.93, 3.94, 3.96, 3.102, 3.103, Κριτήριο αξιολόγησης

4. Μονότονες συναρτήσεις

4.1 έως 4.18, 4.21, 4.22, 4.23, 4.25, **4.27, 4.28, 4.29, 4.30, 4.32**, 4.33, 4.35, 4.37, **4.38**, 4.40, 4.42, 4.44, 4.45, 4.46, 4.48, 4.50, **4.53, 4.54**, 4.57, 4.58, 4.59, 4.63, 4.64, 4.65, 4.70, 4.71, 4.72, 4.74, 4.75, 4.76, **4.77**, 4.78, 4.84, 4.85, 4.86, 4.88, 4.90, 4.91, 4.98, 4.101, 4.104, **4.108, 4.109, 4.112, 4.114, 4.115, 4.116, 4.118, 4.119, 4.120, 4.121, 4.122, 4.123**, 4.125, 4.126, 4.129, **4.131**, 4.133, 4.134, 4.135, 4.137, 4.139, 4.151, 4.152, 4.153, 4.154.

5. Συνάρτηση 1 – 1 – Αντίστροφη συνάρτηση

5.1 έως 5.16, 5.19, 5.21, 5.23, 5.24, 5.27, 5.29, 5.30, 5.32, 5.36, 5.37, 5.40, 5.41, 5.44, 5.45, 5.49, 5.51, 5.53, 5.54, 5.55, 5.56, 5.58, 5.60, **5.63**, 5.64, 5.67, 5.68, 5.70, 5.73, **5.74**, 5.75, 5.78, **5.79**, 5.81, 5.82, 5.84, 5.86, 5.89, 5.91, 5.93, 5.95, 5.98, 5.102, 5.103, **5.105, 5.106, 5.107, 5.108, 5.109, 5.110**, 5.111, 5.116, 5.118, 5.120, 5.121, 5.132, 5.133, 5.134, Κριτήριο αξιολόγησης.

6. Επανάληψη στο κεφάλαιο: Συναρτήσεις

6.1, 6.2, **6.3**, 6.4, **6.5**, 6.7, 6.9, 6.11, 6.12, **6.13**, 6.16, 6.17, **6.18**, 6.19, 6.20, 6.22, 6.23, 6.25, 6.27, **6.33**, 6.34.

7. Όριο συνάρτησης στο $x_0 \in \mathbb{R}$

7.1 έως 7.6, 7.8, 7.9, 7.12, 7.14, 7.16, 7.17, 7.19, 7.20, **7.23, 7.24, 7.25, 7.27, 7.28**, 7.29, 7.30, 7.31, 7.32, 7.33.

8. Ιδιότητες των ορίων

8.1 έως 8.26, 8.28, 8.31 α, δ , 8.32 α, γ , 8.33. 8.34 γ , 8.35 γ , 8.38, **8.39**, 8.40 $\beta, \delta, \epsilon, \sigma\tau$, 8.41 $\delta, \sigma\tau$, 8.42, 8.43 γ , 8.44 α, β , 8.45 α , 8.46 β , 8.47, 8.49, 8.52, 8.54, 8.55, 8.58, 8.59, 8.60 α, δ , 8.61, 8.63 α , 8.66, 8.68, 8.70, 8.71, 8.74, 8.75, 9.77, 8.78, 8.79, 8.80, 8.83, 8.85, 8.88, 8.91, 8.93, 8.94, 8.98, 8.99 α, β , 8.100, 8.102, 8.103, 8.105 β , 8.107, 8.11, 8.112, 8.114, 8.119, 8.120, 8.123, 8.125, 8.127, 8.129, **8.131**, 8.132, 8.135, 8.138, 8.143, 8.144, 8.145, 8.146, 8.147, 8.148, 8.151, 8.152, 8.154, 8.159, 8.160, 8.162, 8.165, 8.169, 8.172, ,8.175, 8.176, 8.178, 8.179, 8.182, 8.183, 8.186, **8.187, 8.188, 8.189**, 8.191, **8.198, 8.199, 8.200, 8.201, 8.202, 8.203**, 8.206, 8.208, 8.210, 8.211, 8.214, 8.216, 8.217, 8.219, 8.221, 8.227, 8.228, 8.229, Κριτήριο αξιολόγησης.

9. Μη πεπερασμένο όριο στο x_0

9.1 έως 9.11, 9.12 δ, ϵ , 9.13 β, γ , 9.14, 9.15 β , 9.16 β , 9.17 α, γ , 9.18 α , 9.19 β , 9.20, 9.21 γ , 9.22, 9.23 α , 9.24, 9.29, **9.32, 9.33, 9.34**, 9.37, 9.38, 9.39, 9.40, 9.42, 9.45, 9.47, 9.48, 9.51, 9.53, 9.55, 9.57, 9.60, 9.61, 9.64,

9.66, 9.68, 9.69, 9.72, 9.76, 9.78, 9.81, **9.82, 9.83, 9.84, 9.85, 9.86, 9.87,**
9.88, 9.91, 9.93, 9.94, 9.95, **9.97,** 9.98, 9.99, 9.100.

10. Όριο συνάρτησης στο άπειρο

10.1 έως 10.23, 10.24 β,δ, 10.25 α, 10.26 α, β, 10.27 β, γ, 10.29, 10.30,
10.31 α, 10.33 α, δ, 10.34 α, 10.36, 10.37, 10.39, 10.40 γ,δ, 10.42 α,
10.44 β, γ, 10.45 β, 10.46 β, 10.48 β, 10.50 β, ε, 10.51 β, ε, 10.52 β,
10.53 β, 10.54 γ, 10.55 γ, 10.56 β, 10.57 δ, ε, 10.58, 10.60, 10.61, 10.62,
10.63 β, γ, δ, 10.65, **10.66, 10.68, 10.69,** 10.72, 10.74 γ, 10.75 β, 10.78,
10.79, 10.81, 10.85, 10.86, 10.90, 10.94, 10.95, 10.97, 10.99, 10.101,
10.102, 10.104, 10.105, 10.109, 10.110, 10.112, 10.113, 10.118, 10.121,
10.122, **10.125, 10.126, 10.128, 10.129, 10.130, 10.131,** 10.134, 10.135,
10.136, 10.140, **10.141,** 10.143, 10.144, Κριτήριο αξιολόγησης.

11. Συνέχεια συνάρτησης (I): Ορισμός - Πράξεις με συνεχείς συναρτήσεις

11.1 έως 11.8, 11.10, 11.14, 11.16, 11.19, 11.20, 11.21, 11.24, 11.27,
11.30, 11.32, 11.37, 11.40, 11.41, 11.42, 11.45, 11.46, 11.47, 11.52,
11.53, 11.54, 11.55, 11.56, 11.58, 11.59, 11.64, 11.66, **11.69,** 11.70,
11.71.

12. Συνέχεια συνάρτησης (II): Θεώρημα Bolzano

12.1 έως 12.12, 12.14, 12.15, 12.17, 12.22, 12.23, 12.24, 12.27, 12.28,
12.32, 12.34, 12.35, 12.38, 12.39, 12.42, 12.44, 12.45, 12.48, **12.49,**
12.51, 12.52, 12.53, 12.56, **12.57,** 12.59, 12.60, 12.61, 12.63, 12.66,
12.72, 12.73, 12.74, 12.75, 12.76, 12.79, **12.80, 12.81, 12.82,** 12.83,
12.84, 12.86, 12.88, 12.93.

13. Συνέχεια συνάρτησης (III): Θ.Ε.Τ. – Θ.Μ.Ε.Τ. – Σύνολο τιμών

13.1 έως 13.12, 13.14, 13.18, 13.19, 13.21, 13.23, 13.24, 13.25, 13.26,
13.28, 13.30, 13.35, 13.38, 13.41, 13.44, 13.45, 13.47, **13.48, 13.49,**
13.50, 13.51, 13.53, 13.54, 13.55, 13.57, 13.59, 13.60, 13.63, 13.64,
13.67, **13.68, 13.69,** 13.70, 13.71, 13.72, Κριτήριο αξιολόγησης.

14. Επανάληψη στο κεφάλαιο Όριο – Συνέχεια συνάρτησης

14.1, **14.2**, 14.4, **14.5**, 14.6, 14.7, 14.8, 14.10, 14.13, 14.15, 14.16, 14.19, 14.23, 14.26, 14.29, **14.30**, **14.32**, 14.36, **14.37**, **14.38**, 14.39, 14.43, 14.47, 14.49, 14.50.

15. Η έννοια της παραγώγου

15.1 έως 15.15, 15.17, 15.18, 15.20, 15.26, 15.31, 15.33, 15.36, 15.40, 15.41, 15.44, 15.45, 15.47, 15.48, 15.50, 15.51, 15.54, 15.55, 15.57, 15.58, 15.63, 15.65, 15.67, 15.68, 15.70, 15.71, 15.74, 15.76, 15.79, 15.80, 15.83, 15.86, 15.88, **15.90**, **15.91**, **15.92**, **15.93**, **15.94**, **15.95**, 15.97, 15.98, 15.100, 15.101, 15.102, **15.103**, 15.104, 15.105, 15.109, 15.110, 15.111.

16. Παραγωγίσιμες συναρτήσεις – Παράγωγος συνάρτηση – Κανόνες παραγώγισης

16.1 έως 16.24, 16.25 γ, 16.26 ε, 16.27, 16.29 α, 16.30 γ, δ, 16.31 α, 16.32, 16.33 γ, 16.34, 16.36, 16.37, 16.39, 16.42, 16.43, 16.44, 16.45, 16.48, **16.50**, 16.51 α, δ, 16.54, 16.56, 16.57, 16.58, **16.59**, 16.62, 16.64, 16.66, 16.67, 16.68, 16.71, 16.74, 16.76, 16.78, 16.80, **16.82**, 16.85, 16.88, 16.92, 16.97, 16.99, 16.101, 16.103, 16.104, 16.107, 16.108, **16.111**, **16.112**, **16.113**, **16.114**, **16.115**, **16.116**, 16.118, 16.122, 16.124, **16.126**, 16.129, 16.130, 16.131, 16.132, 16.133, 16.134.

17. Η εξίσωση της εφαπτομένης

17.1 έως 17.8, 17.10, 17.12, 17.14, 17.15, 17.18, **17.19**, 17.21, 17.23, 17.24, 17.26, 17.27, 17.29, 17.31, 17.32, 17.33, 17.34, 17.36, 17.38, 17.39, 17.43, 17.44, 17.45, 17.47, 17.50, 17.51, 17.53, 17.56, 17.58, 17.61, 17.62, 17.63, 17.68, 17.70, 17.72, **17.73**, 17.75, 17.78, 17.79, **17.80**, **17.81**, **17.82**, **17.83**, **17.84**, **17.85**, **17.86**, **17.87**, 17.89, 17.90, 17.91, 17.93, **17.94**, **17.95**, **17.96**, 17.98, 17.99, 17.101, 17.102, Κριτήριο αξιολόγησης.

18. Ρυθμός μεταβολής

18.1 έως 18.9, 18.12, 18.14, 18.17, 18.19, 18.21, 18.23, 18.30, 18.31, 18.34, 18.37, 18.39, **18.45, 18.46, 18.47, 18.48, 18.49, 18.50, 18.51, 18.52, 18.54, 18.55, 18.56, 18.57, 18.58.**

19. Θεώρημα Rolle

19.1 έως 19.12, 19.14, 19.16, 19.17, 19.19, 19.22, 19.24, 19.26, 19.28, 19.29, 19.31, 19.32, 19.34, 19.35, 19.38, 19.40, 19.41, 19.42, 19.44, 19.45, 19.48, 19.49, 19.51, 19.52, 19.55, 19.57, 19.58, 19.61, 19.65, 19.66, 19.67, 19.68, 19.70, 19.73, **19.75, 19.76, 19.77, 19.78, 19.80, 19.83, 19.84, 19.85, 19.88, 19.90, 19.91, 19.92, 19.94, 19.95, 19.96,** 19.102.

20. Θεώρημα Μέσης Τιμής (Θ.Μ.Τ)

20.1 έως 20.11, 20.12, 20.14, 20.17, 20.18, 20.20, 20.24, 20.26, 20.29, 20.32, 20.33, 20.35, 20.39, 20.40, 20.41, 20.42, **20.43, 20.45, 20.46, 20.47, 20.50, 20.52, 20.54, 20.55, 20.56, 20.57, 20.58, 20.59, 20.60,** 20.61, 20.63, 20.66, 20.67, 20.70, 20.73, 20.74, **20.75, 20.76, 20.77,** 20.79, Κριτήριο αξιολόγησης.