Financial Series Solutions

1. €790.66 ; €70.66
2. (a) 0.33%
   (b) €1148.55
3. €11265.95
4. Proof
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6. $P(1.09) + P(1.09)^2 + ...P(1.09)^5; A = €1000$
7. €5257.31
8. €1017.23
9. €371.49
10. Yes
11. €448.13
12. 6.536%
13. No Solution Given
14. €1,536.42 is a fair price.
15. €11,265.95
16. €6,662.46
17. €8,941.42
18. €9,959.35
19. €8,488.89
20. €3,544.66
21. €123.87
22. €122,077.73

23. €$\frac{200}{i}$, where i is the annual interest rate (in decimal form.)

24. €56.74 (payments made at start of each month)

25. (a) 0.846836%
    (b) €333,408.52
    (c) ≈ €1,968.08

26. (a) 2nd: A(1.04); 3rd: A$(1.04)^2$; 4th:A$(10.4)^3$; 26th: A$(1.04)^{25}$
    (b) A $\left(\frac{1.04^{26}-1}{0.04}\right)$
    (c) $485,199
    (d) (ii) nth payment: €$\left(\frac{485{,}199(1.04)^{n-1}}{(1.0478)^{n-1}}\right)$
    (iii) $11.5 million
    (e) 31.3%

27. (a) €19,417.48
    (b) €$\left(\frac{20{,}000}{1.03^t}\right)$
    (c) €358,710.84
    (d) i. 0.002466
        ii. €[P$(1.002466)^n$]
        iii. 390.16
        iv. €618.29