Priblem 1: "A brief history" of life in the universe

1-1. $T = 10^{10} / (1)^{1/2} = 10^{10}$ K (10 billion degrees)

1-2. $T = 10^{10} / (180)^{1/2} = 0.7 \times 10^9 \approx 10^9$ K (1 billion degrees)

1-3. $t = [10^{10} / (3 \times 10^3)]^2$ s $= 10^{13}$ s $= 3 \times 10^5$ yr

1-4. $t = (10^{10} / 10^3)^2$ s $= 10^{14}$ s $= 3 \times 10^6$ yr

1-5. 100 K

1-6. 10 K

1-7. a – (f) – (d) – (h) – (i) – (c) – (g) – (j) – (e) – (b)

問題 1:　宇宙における生命の略歴

1-1. $T = 10^{10} / (1)^{1/2} = 10^{10}$ K (100 億 K)

1-2. $T = 10^{10} / (180)^{1/2} = 0.7 \times 10^9 \approx 10^9$ K (10 億 K)

1-3. $t = [10^{10} / (3 \times 10^3)]^2$ s $= 10^{13}$ s $= 3 \times 10^5$ 年

1-4. $t = (10^{10} / 10^3)^2$ s $= 10^{14}$ s $= 3 \times 10^6$ 年

1-5. $T = 10^{10} / (9 \times 10^{15})^{1/2} = 100$ K

1-6. $T = 10^{10} / (5 \times 10^{17})^{1/2} = 10$ K

1-7. a – (f) – (d) – (h) – (i) – (c) – (g) – (j) – (e) – (b)