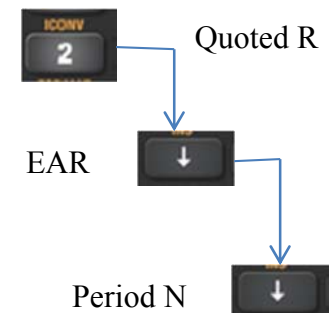SAMBA Bank quotes a rate of 6 percent with an effective annual rate of 6.17 percent. Does the bank use annual, quarterly, or monthly compounding?

أعلن مصرف سامبا معدل فائدة قدره 6 بالمئة بمعدل سنوي فعلي قدره 6.17 بالمئة. هل استخدم المصرف تراكما سنويا او فصليا (ربع سنوي) او شهريا؟

| Parameter | Value | Notes |
|---|---|---|
| Quoted I/Y (R) | 6 | |
| Effective EAR | 6.17 | |
| Period | ? | Annually? Quarterly? Or Monthly? |



Annually:  N = 1

EAR = $(1 + R/N)^N$ -1   EAR = $(1+0.06/1)^1$ -1 = 1.06 – 1 = 0.06 = 6.00 ≠ 6.17, OR

 6 ENTER ↓ ↓ 1 ENTER ↑ CPT = 6.00 for Annually ≠ 6.17

ICONV = Interest rate conversion

Quarterly:  N = 4

EAR = $(1 + R/N)^N$ -1   EAR = $(1+0.06/4)^4$ -1 = $(1+0.015)^4$ – 1 = 0.0614 = 6.14 ≠ 6.17, OR

 6 ENTER ↓ ↓ 4 ENTER ↑ CPT = 6.14 for Quarterly ≠ 6.17

Monthly:  N = 12

EAR = $(1 + R/N)^N$ -1   EAR = $(1+0.06/12)^{12}$ -1 = $(1+0.005)^{12}$ – 1 = 0.0617 = 6.17 = 6.17, OR

 6 ENTER ↓ ↓ 12 ENTER ↑ CPT = 6.17 for Monthly = 6.17

Therefore, the answer is **Monthly**.