Basic ECG Course 2026
-Rhythm Interpretation-

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- Heart Rate
- Rhythm Regularity
- P Wave
- PR Interval
- QRS Duration
- Interpret the Rhythm
- Rate → Rhythm → P waves → PR → QRS → Name the Rhythm





- Heart Rate ???



- 1500 method (more precise)
- 1500 ÷ 22 (number of small squares/box) = 68 **bpm**



- Rhythm Regularity???



- P wave morphology???



- **Duration:** < 0.12 s (≤ 3 small squares)
- **Amplitude:** < 2.5 mm in limb leads
- **Shape:** smooth, rounded
- **Best seen in:** Lead II



- **Duration:** 0.12 s (3 small squares/box)
- **Amplitude:** 1.5 mm
- **Shape:** smooth, rounded



- PR Interval ???



- From the beginning of the P wave
- To the beginning of the QRS complex
- 0.12 – 0.20 seconds (120 – 200 ms) @ 3 – 5 small boxes



- **Duration: ~** 0.16 s @ 4 small squares/box



- QRS complex ???



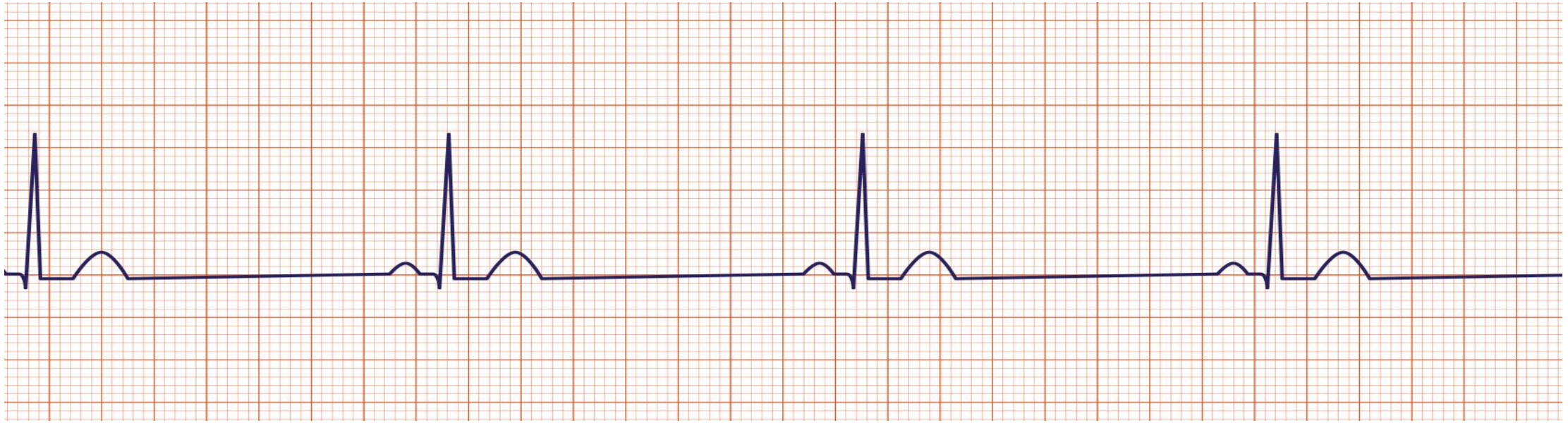
- **Duration:** 0.08 - 0.12 s (2 - ≤ 3 small squares/box)
- **Amplitude:** large compared to P wave
- **Shape:** sharp, narrow
- **Best seen in:** chest leads (V1–V6)



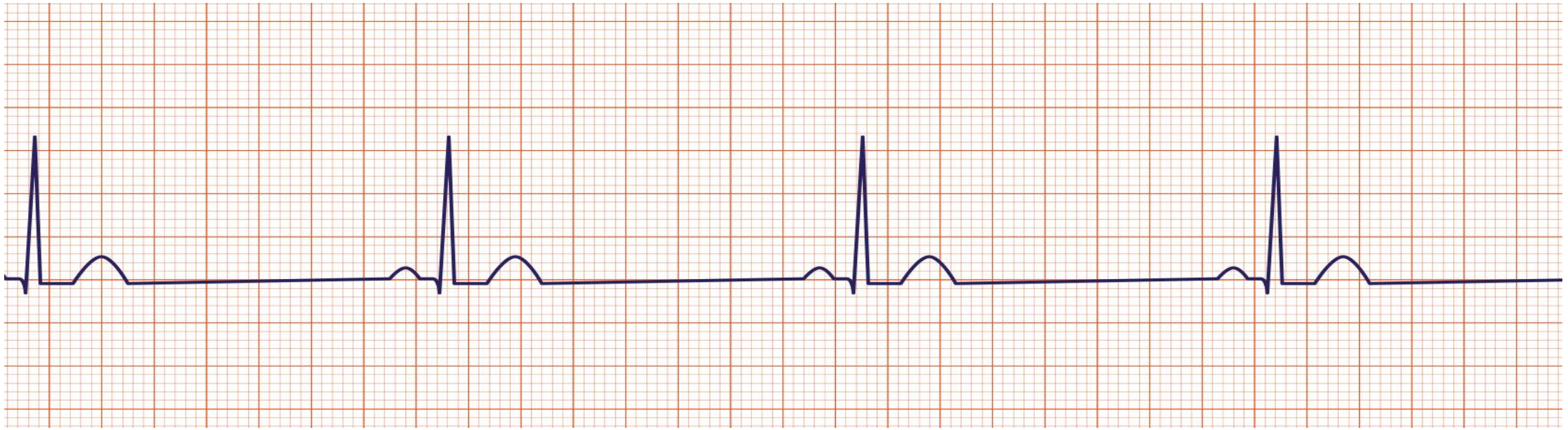
- **Duration:** 0.12 s @ 3 small squares/box



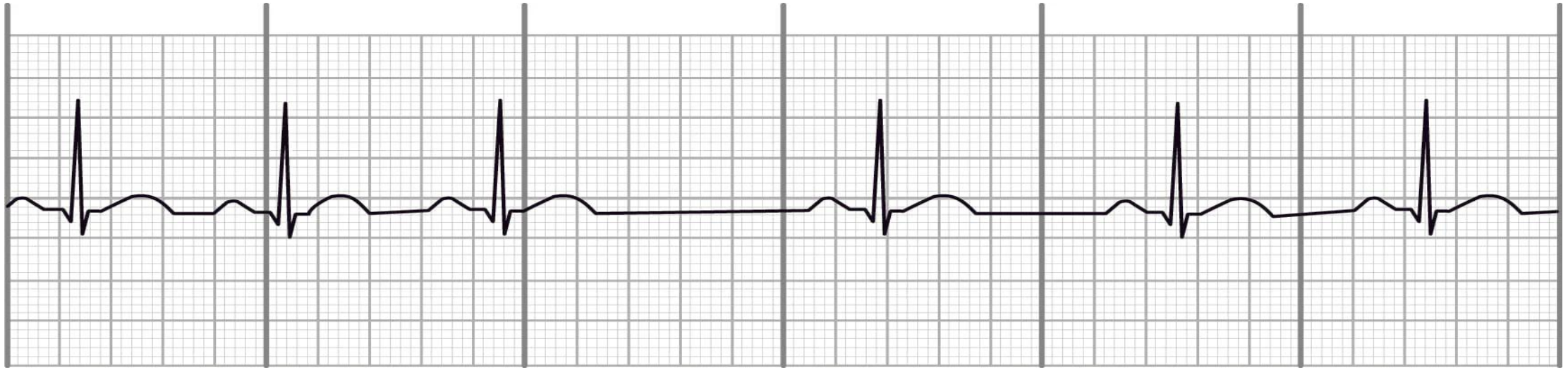
- Normal sinus rhythm



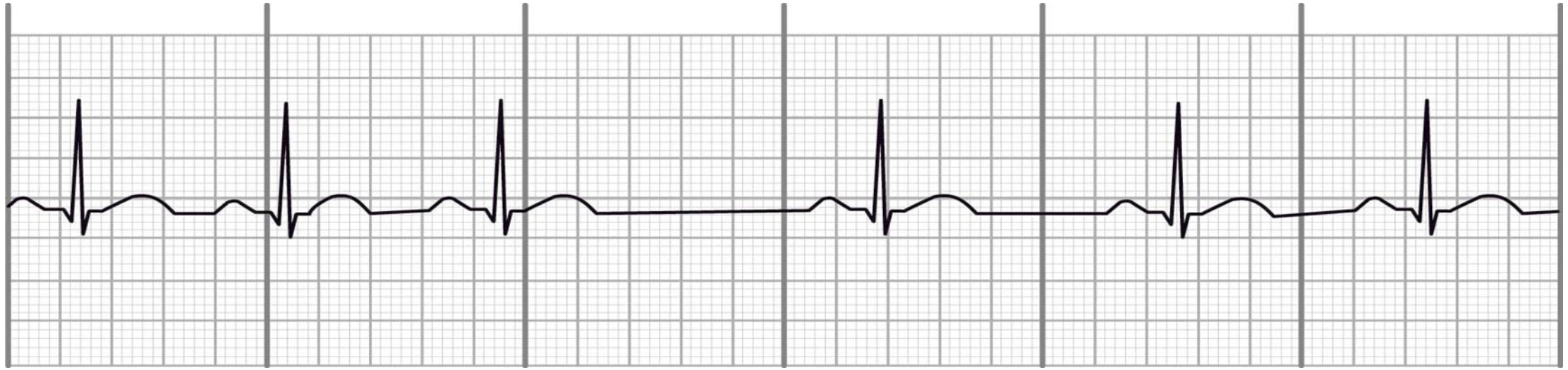
- What is this rhythm ???



- Sinus bradycardia (~ 37 bpm)



- What rhythm **is this** ???



- Sinus arrhythmia



- What rhythm is this ???



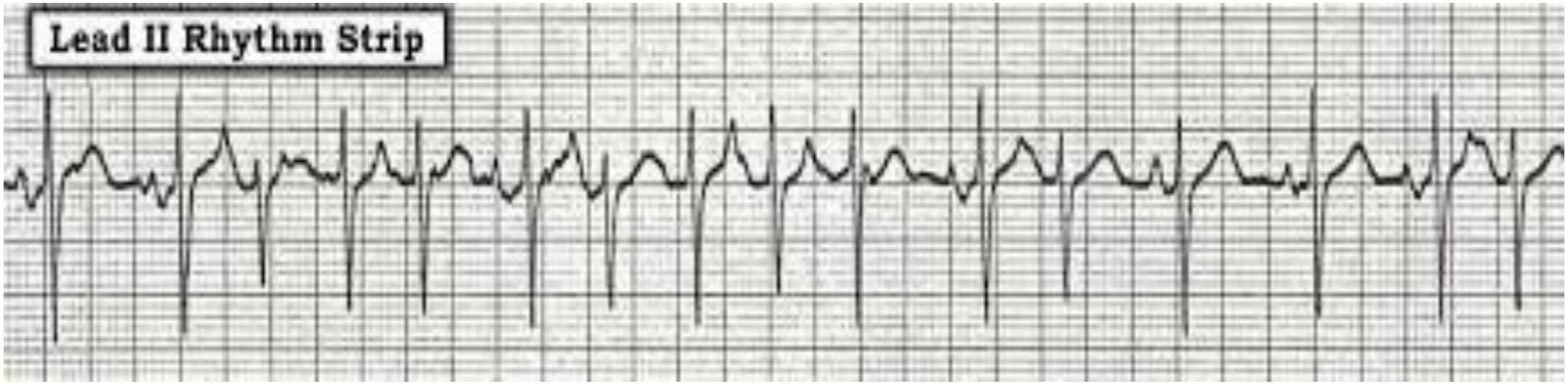
- Sinus tachycardia (~ 120 bpm)



- What rhythm is this ???



- Wandering atrial pacemaker (WAP)



- What rhythm is this ???



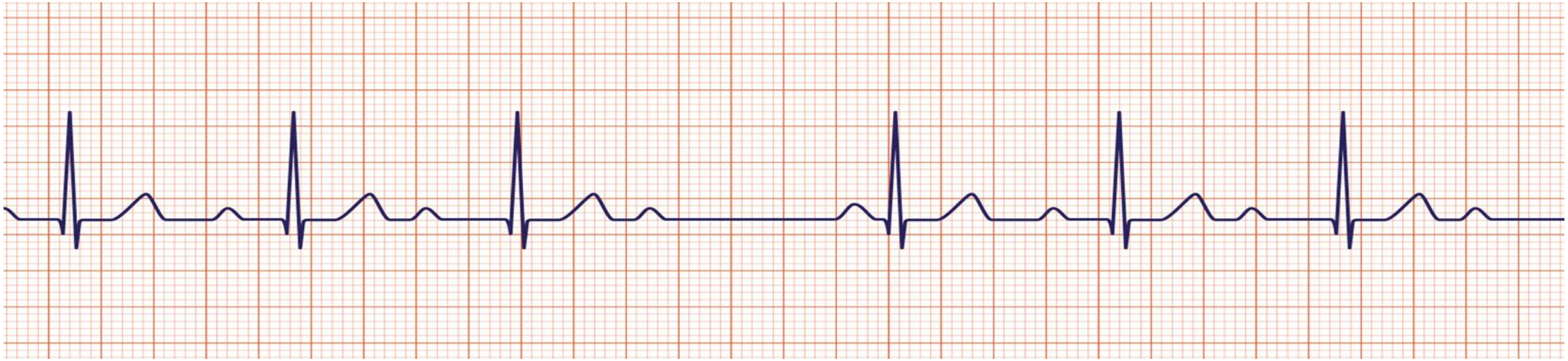
- Multifocal atrial tachycardia (MAT)



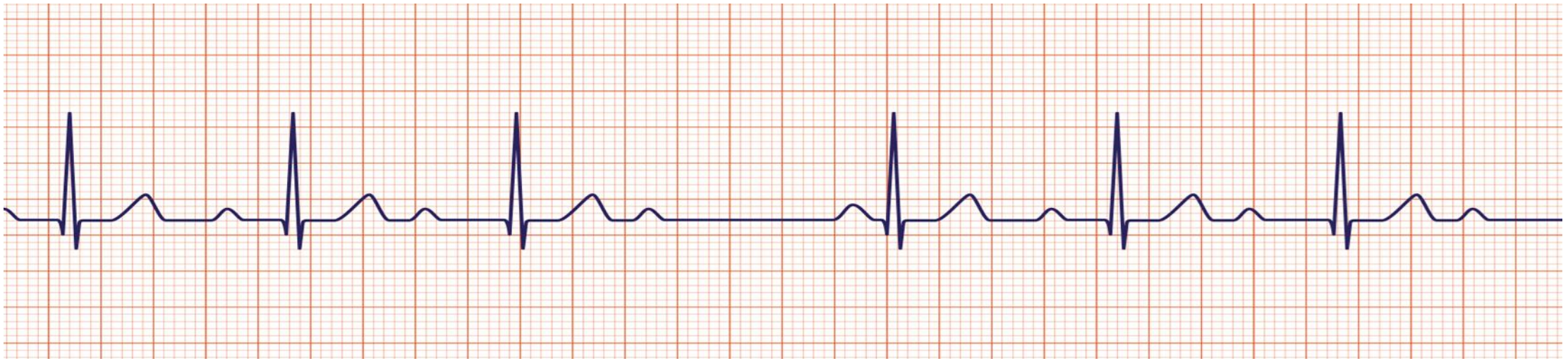
- What rhythm is this ???



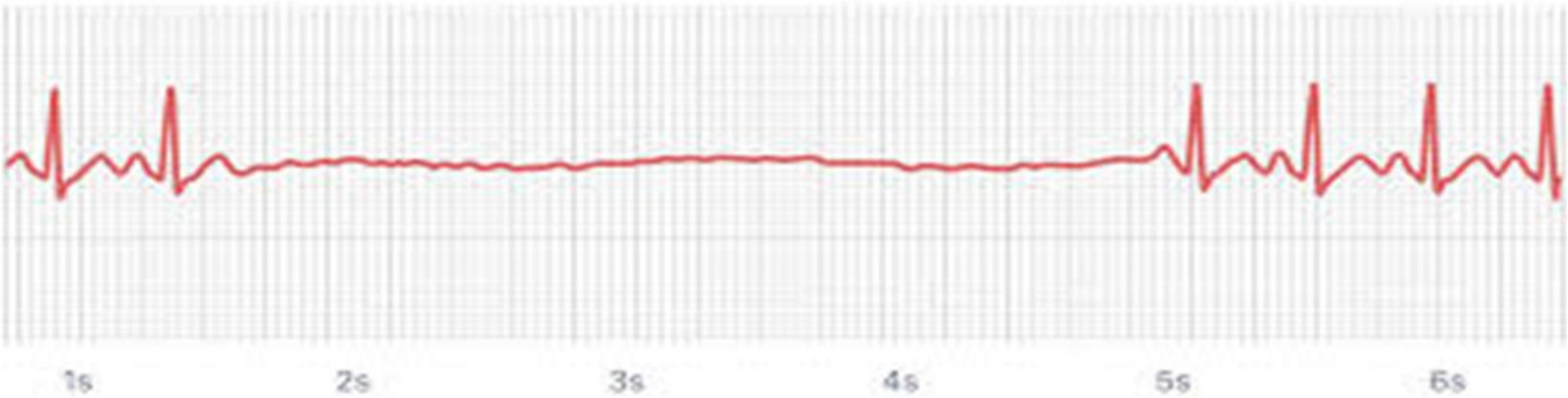
- Atrial fibrillation with slow ventricular response



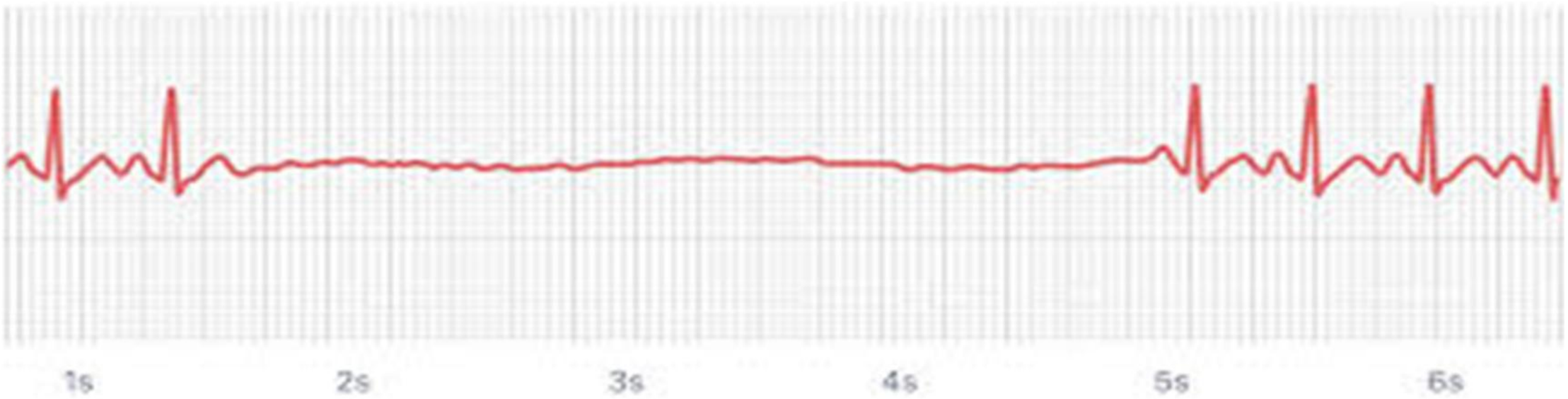
- What rhythm is this ???



- 2nd degree AV block with mobitz type 1(wenckebach)



- What rhythm is this ???



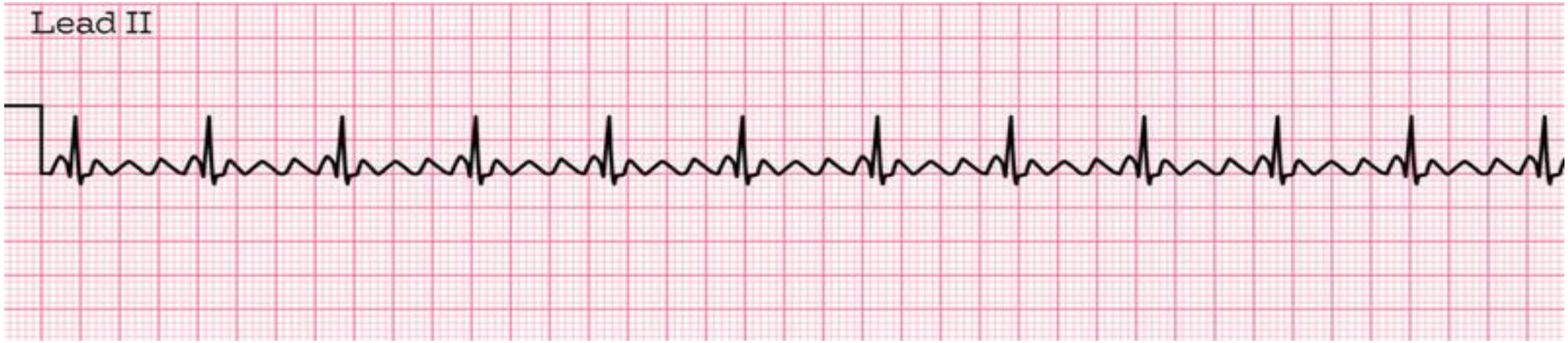
- Sinus arrest > 3 second



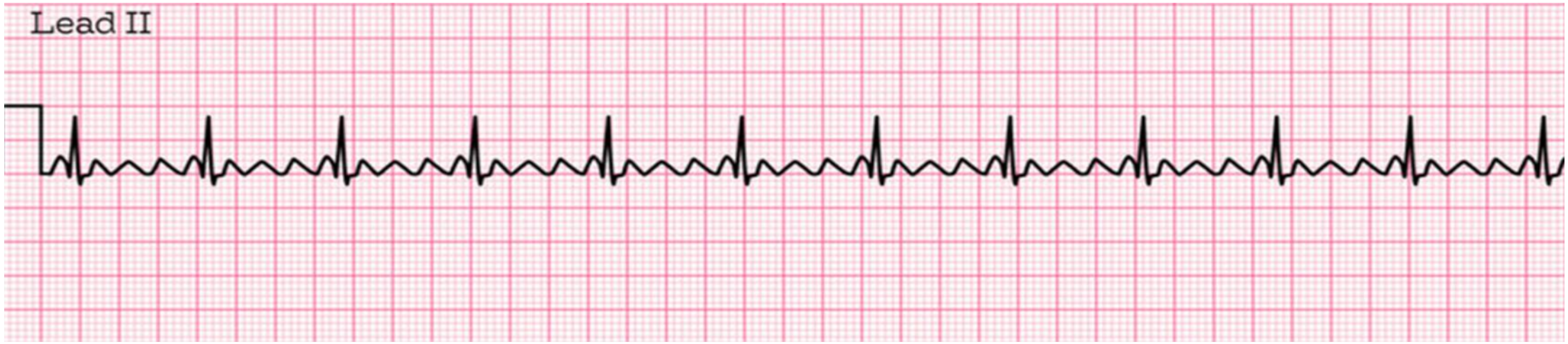
- What rhythm is this ???



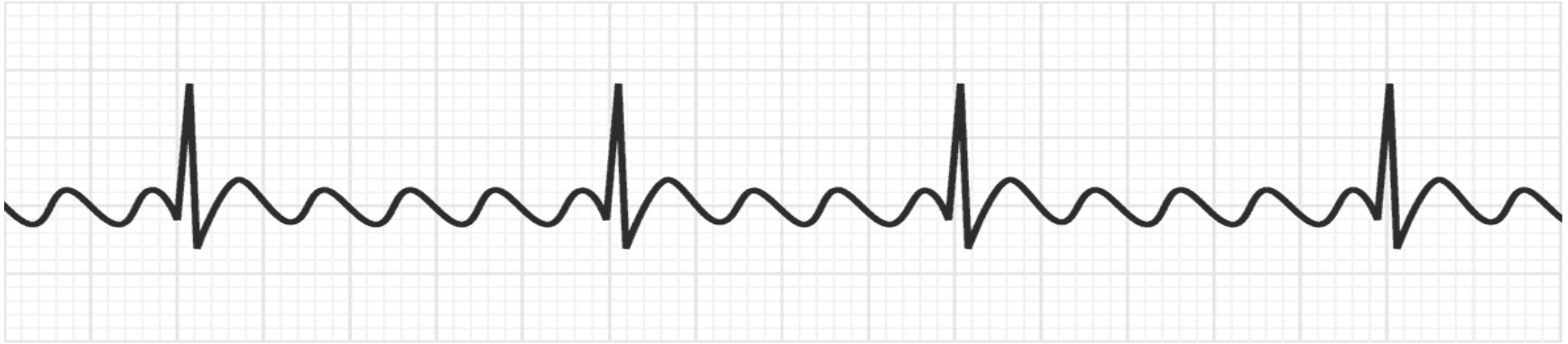
- Ventricular standstill



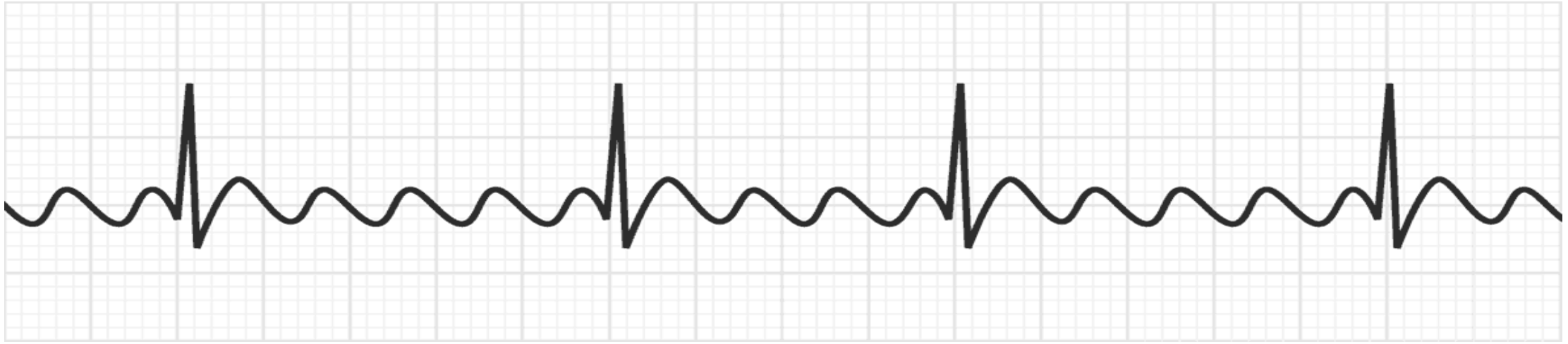
- What rhythm is this ???



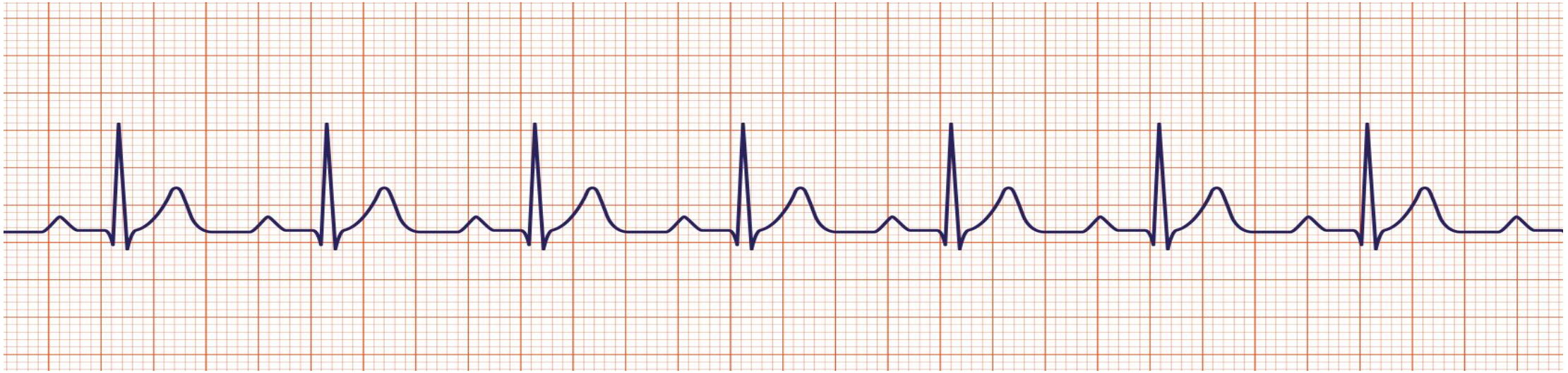
- Atrial flutter with 4:1 block



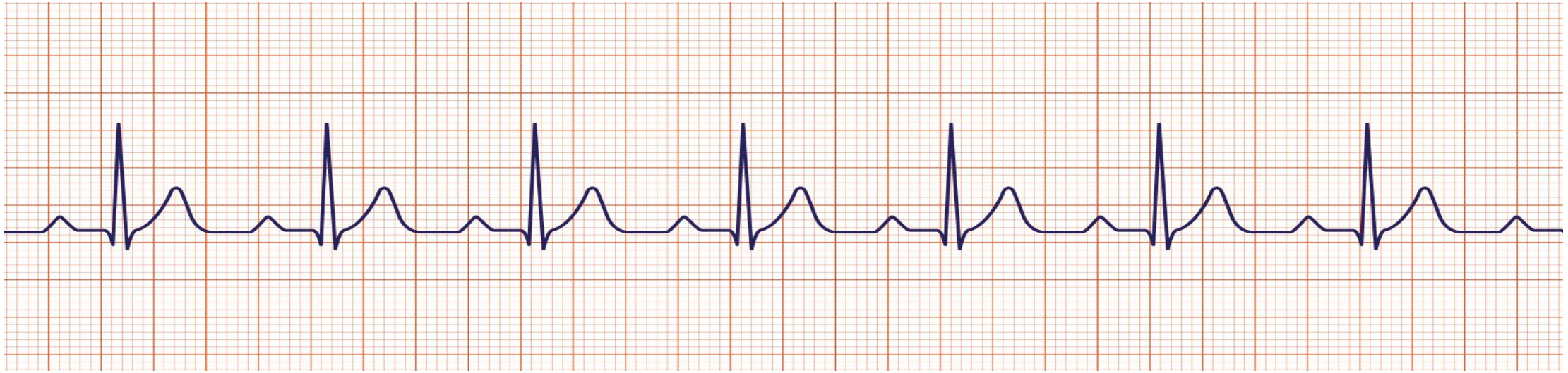
- What rhythm is this ???



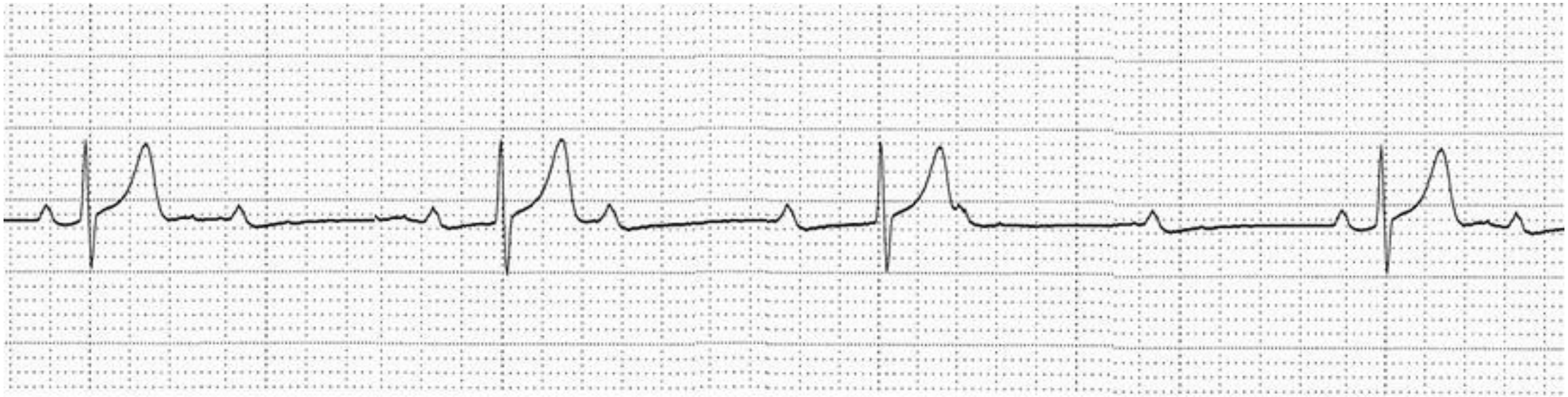
- Atrial flutter with variable block



- What rhythm is this ???



- 1st degree AV block



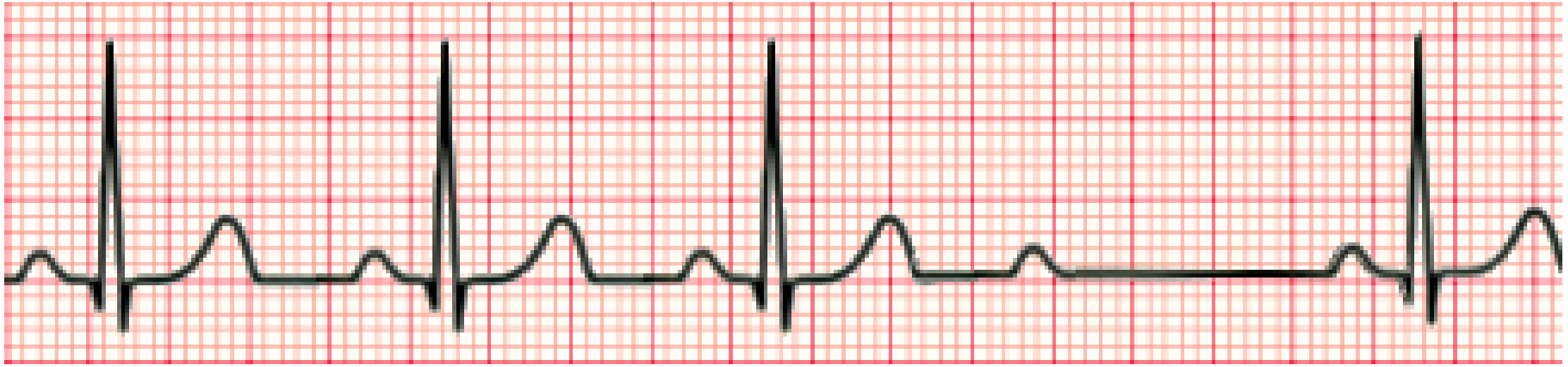
- What rhythm is this ???



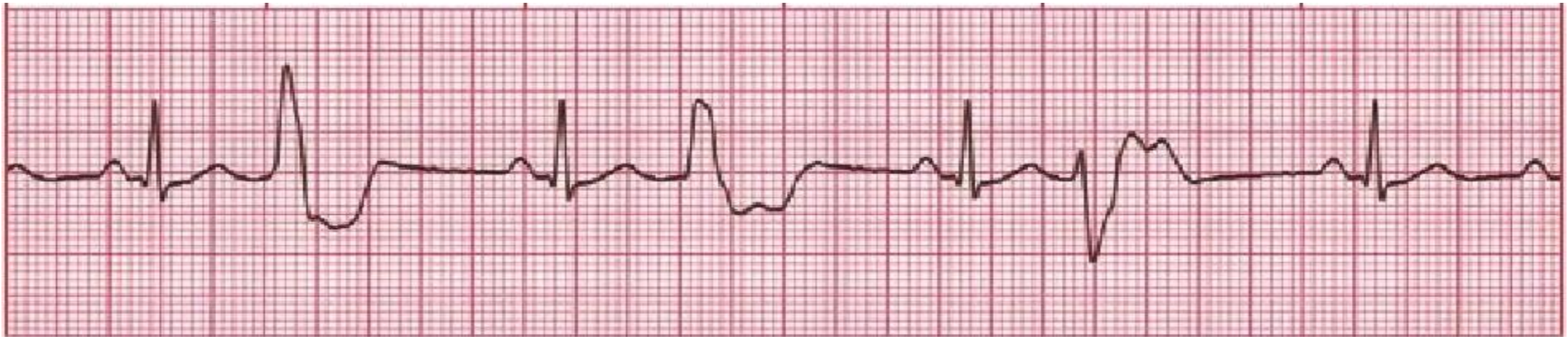
- 3rd degree AV block @ Complete heart block



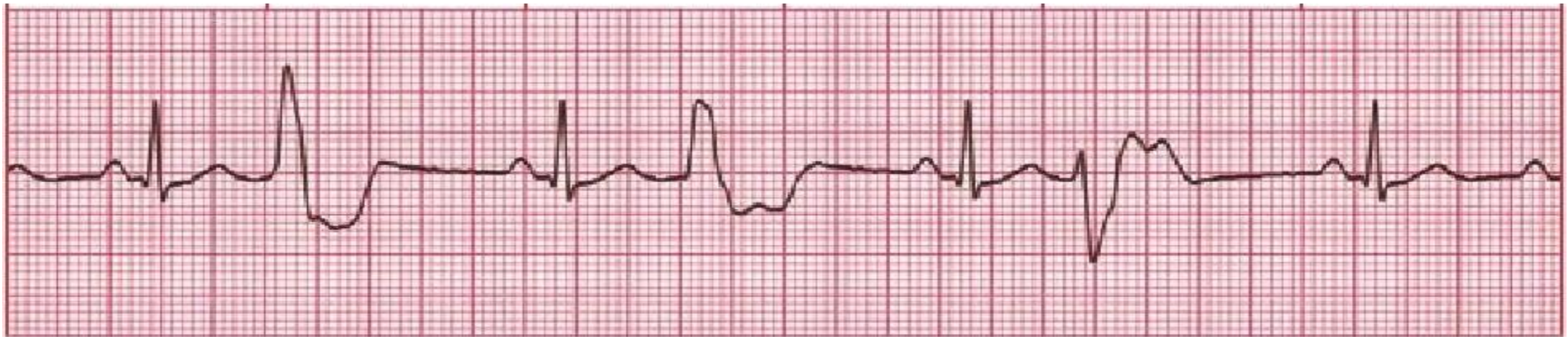
- What rhythm is this ???



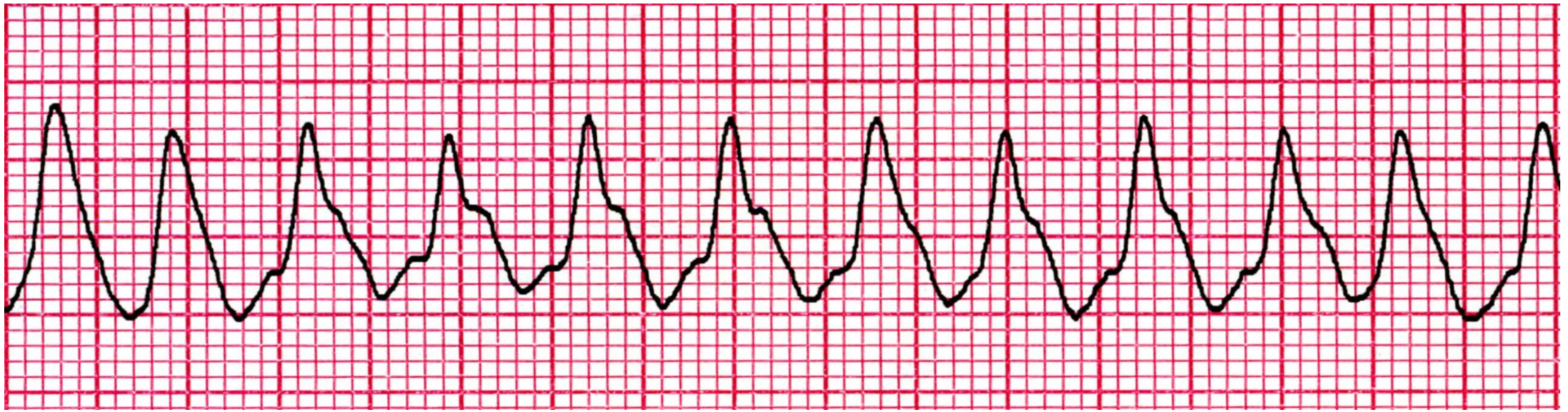
- 2nd degree AV block with Mobitz type II



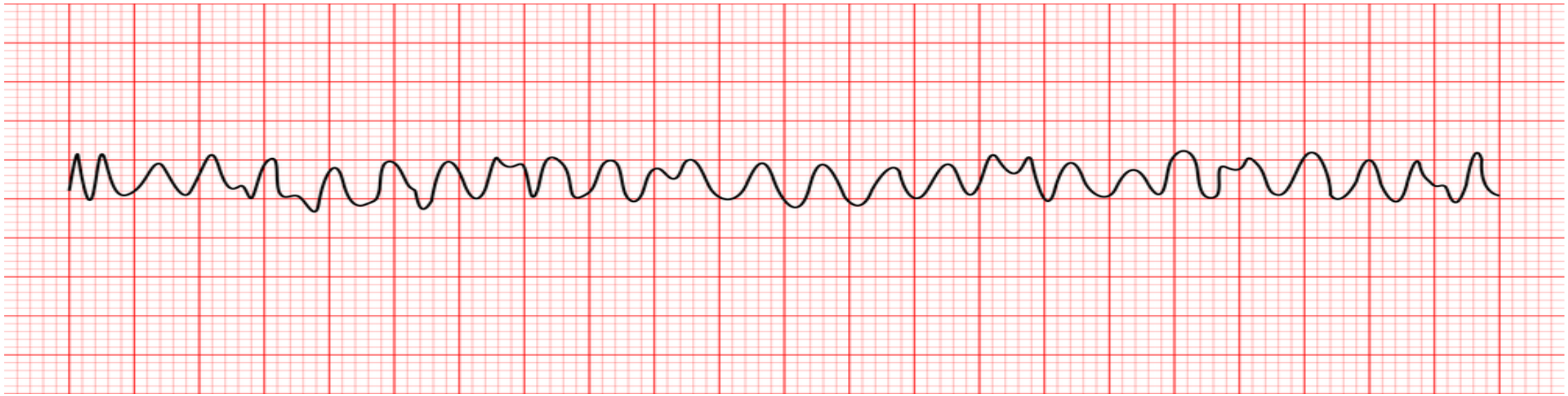
- What rhythm is this ???

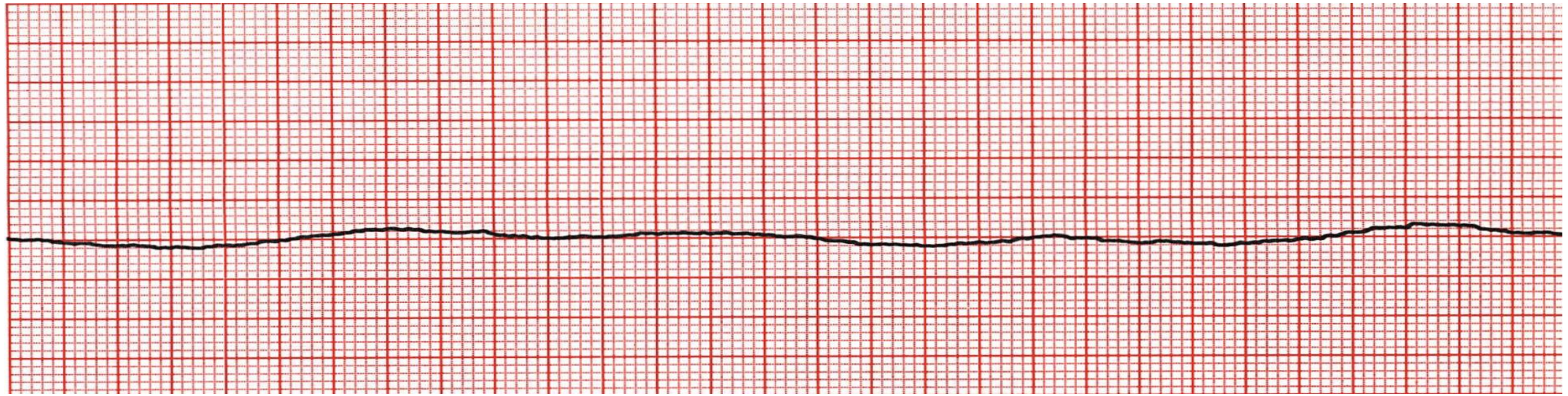


- Sinus rhythm with bigeminy PVC









THANK YOU