

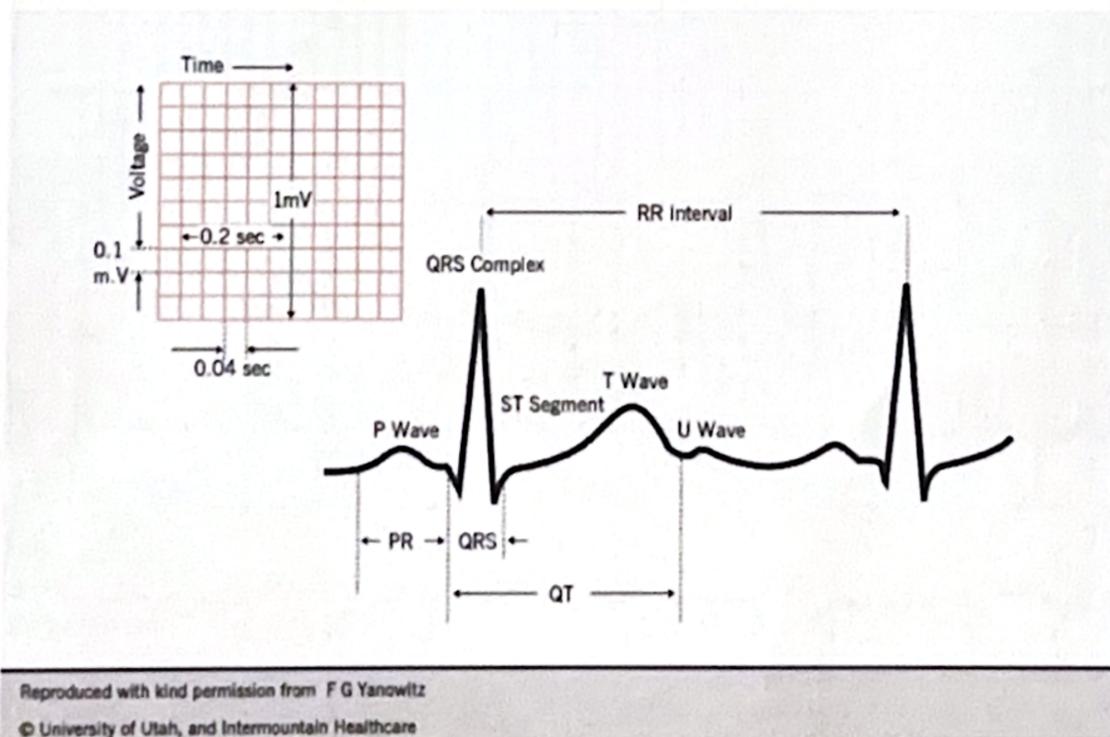
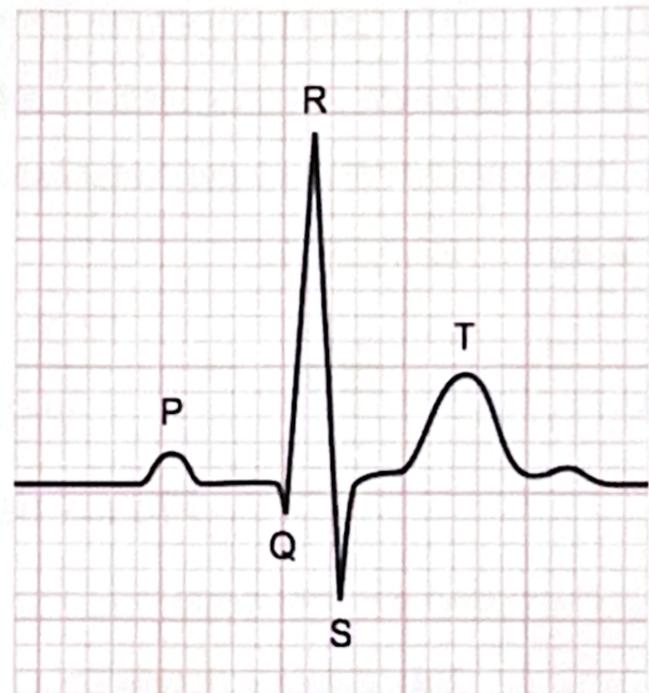
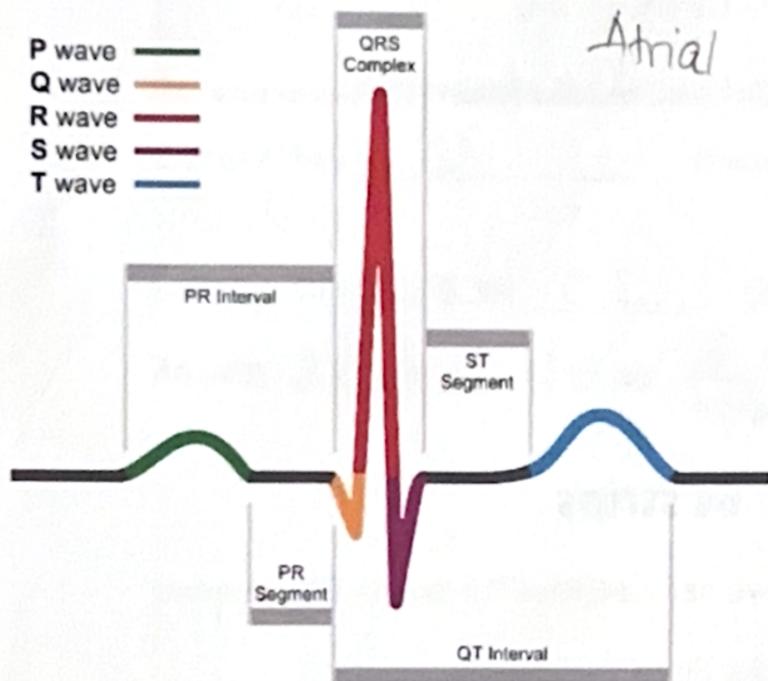
Week 7

Sep 30

AH - Lab

The EKG waveform consists of:

- P Wave: Represents atrial depolarization
- QRS: Represents ventricular depolarization
- T Wave: Represents ventricular repolarization



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- 1 small square on an ECG trace (at 25 mm/s speed) = 0.04 s
- PR interval 0.12–0.20 seconds (3–5 small squares)
- QRS complex 0.06–0.12 seconds (1.5–2.5 small squares)- if Bradycardia could be slightly prolonged at slower rates

### Six Basic Steps for Rhythm Interpretation

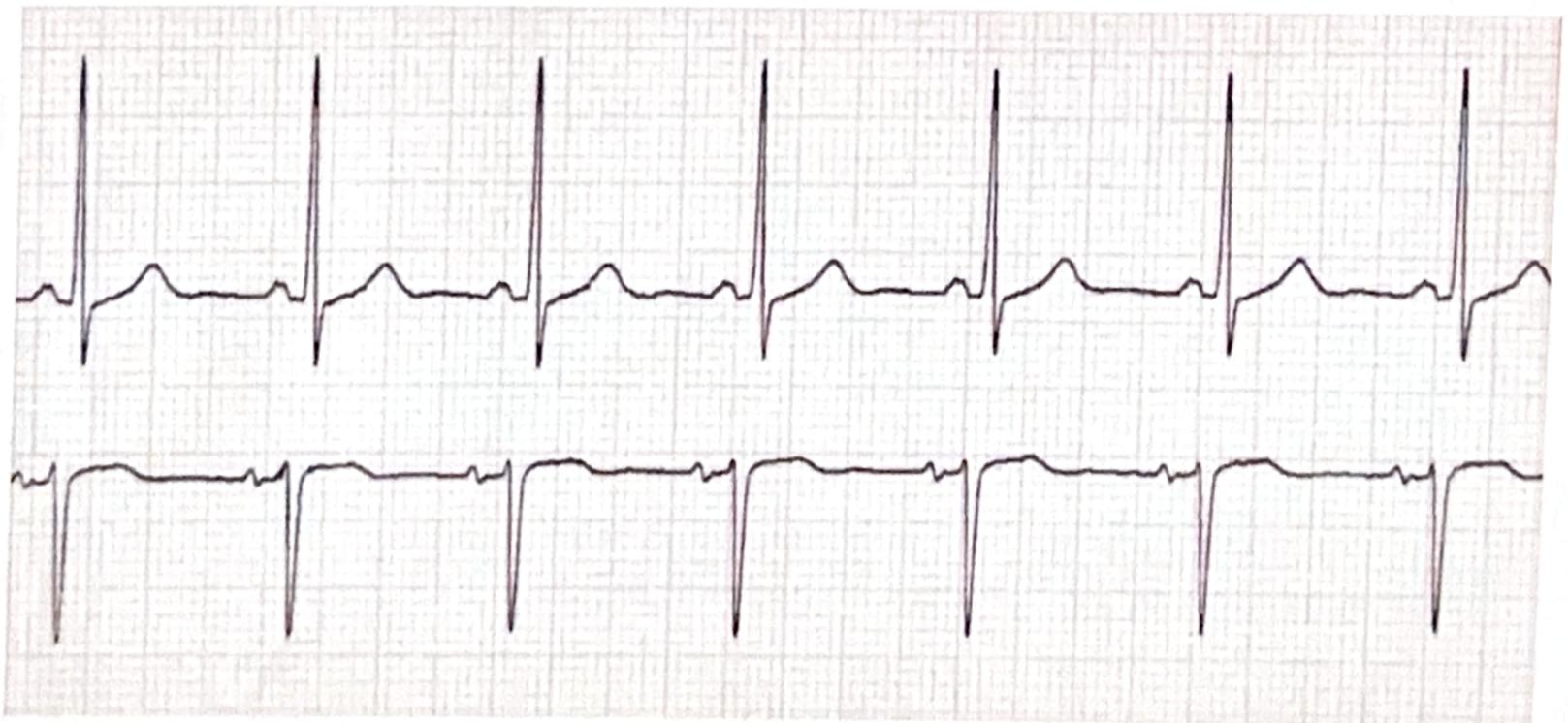
1. Rate: (Calculate the heart rate (HR) or note the HR from the monitor)
2. Regularity: (Measure the regularity or rhythm of the R waves)
3. P-wave Examination: Is there one P wave before each QRS? (there should be)
4. P to R Interval: (Measure the P to R interval - Is it within normal limits? It is consistent?)
5. QRS Width: (Measure the duration of the QRS complex)
6. Rhythm Interpretation

N321 Adult Health EKG Practice

### Please assume these are 6s strips

Please determine heart rate, irregular or regular rhythm, P wave before QRS, PR interval, QRS interval

Then answer if Normal sinus rhythm, Sinus Bradycardia, Sinus Tachycardia, Asystole



1. Heart Rate 70 Regular or irregular regular P wave before each QRS

Between PR (0.12-0.20) 0.12 QRS 0.06-0.12 0.08

Answer: Normal sinus rhythm



2. Heart Rate 90 Regular or irregular regular P wave before each QRS ✓

Between PR (0.12-0.20) 0.20 QRS 0.06-0.12 0.08

Answer: Normal sinus rhythm



3. Heart Rate 30 Regular or irregular \_\_\_\_\_ P wave before each QRS ✓

Between PR (0.12-0.20) 0.05 QRS 0.06-0.10 0.08

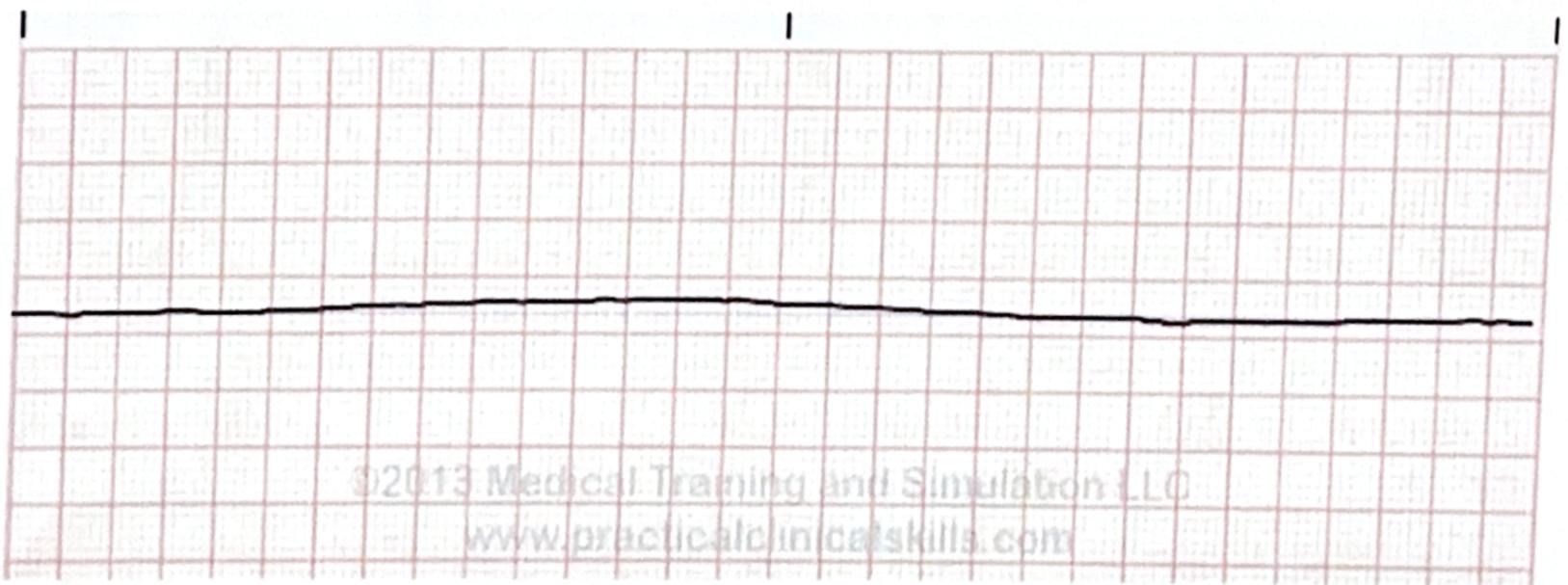
Answer: Sinus Bradycardia

2x 0.4



4. Heart Rate 130 Regular or irregular Regular P wave before each QRS   
 Between PR ( $1 \times 0.4$  0.12-0.20) 0.20 QRS ( $3 \times 0.4$  0.06-0.12) 0.12

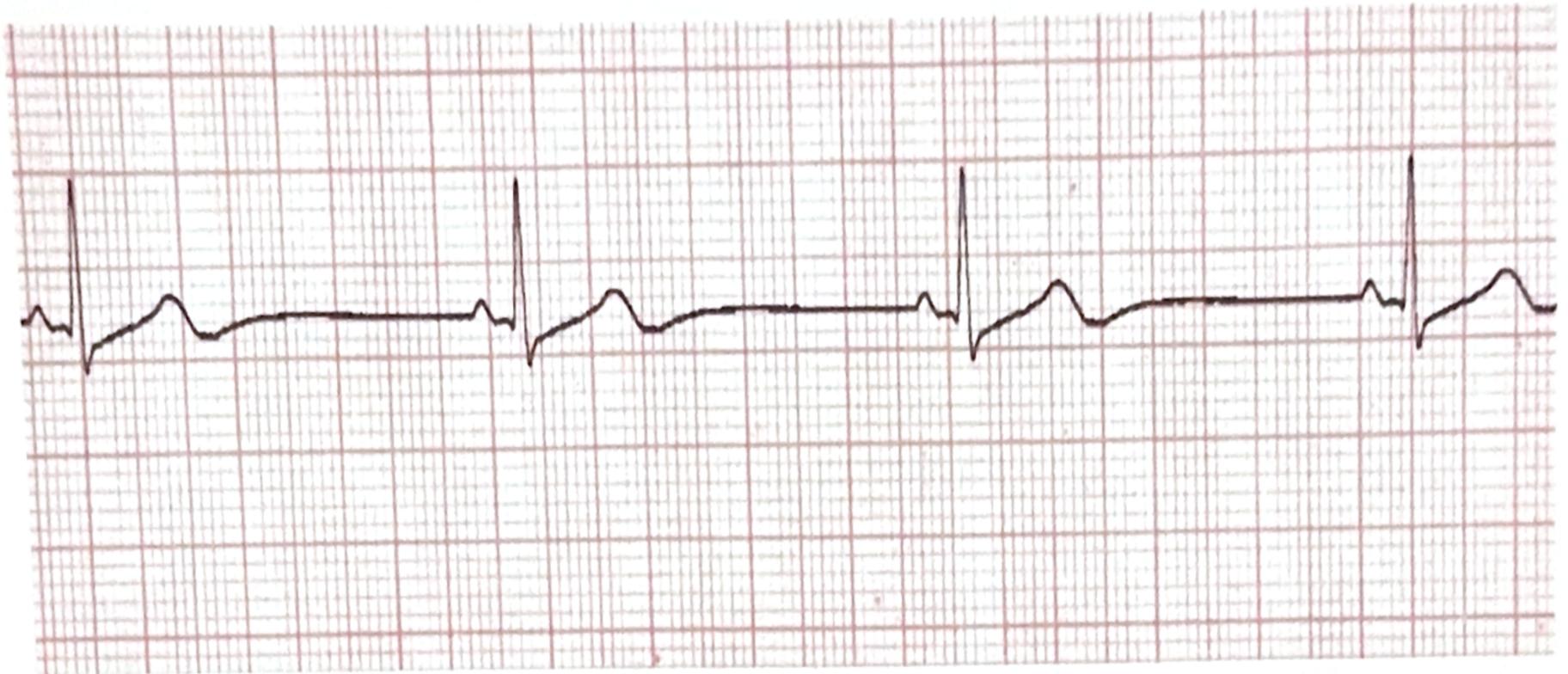
Answer: Sinus tach



5. Heart Rate 0 Regular or irregular Irregular P wave

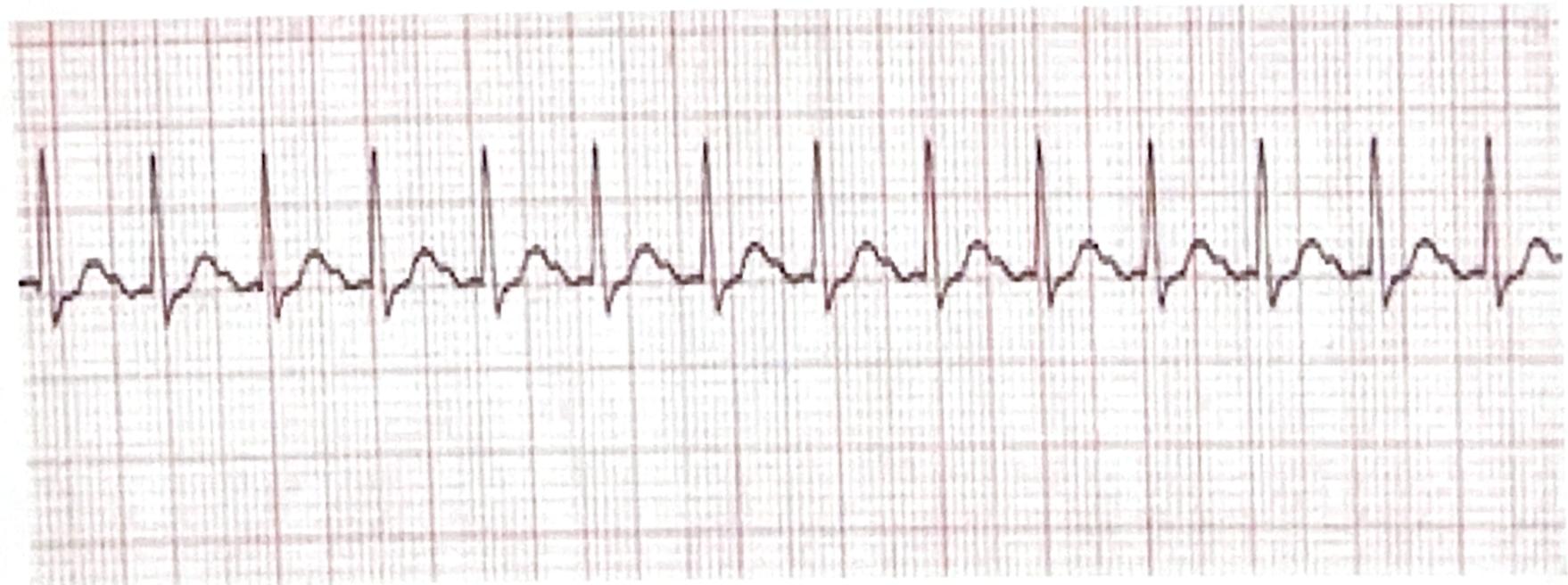
Answer: Asystole

A B C



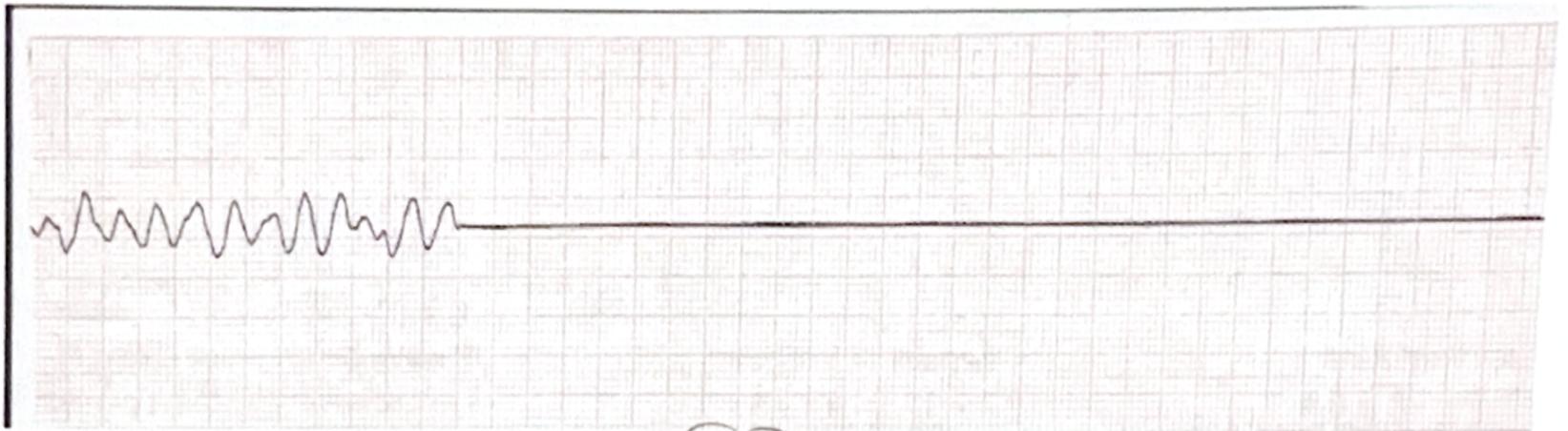
6. Heart Rate 40 Regular or irregular Regular P wave before each QRS ✓  
 Between PR (0.12-0.20)  $5 \times 0.4 = .16$  QRS 0.06-0.12  $4 \times 0.4 = .12$

Answer: Sinus Bradycardia



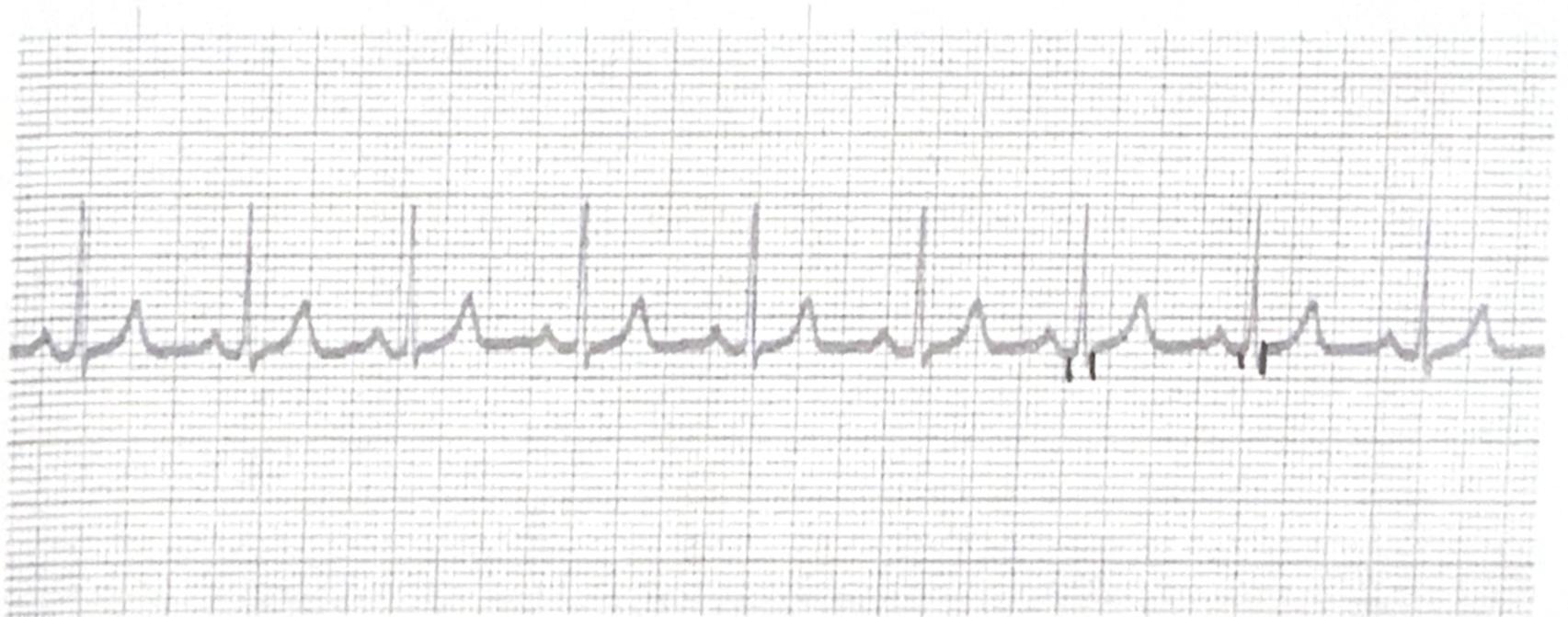
7. Heart Rate 140 Regular or irregular Regular P wave before each QRS ✓  
 Between PR (0.12-0.20)  $2 \times 0.4 = .16$  QRS 0.06-0.12  $4 \times 0.4 = .12$

Answer: Sinus tach



8. Heart Rate \_\_\_\_\_ Regular or irregular irregular P wave X

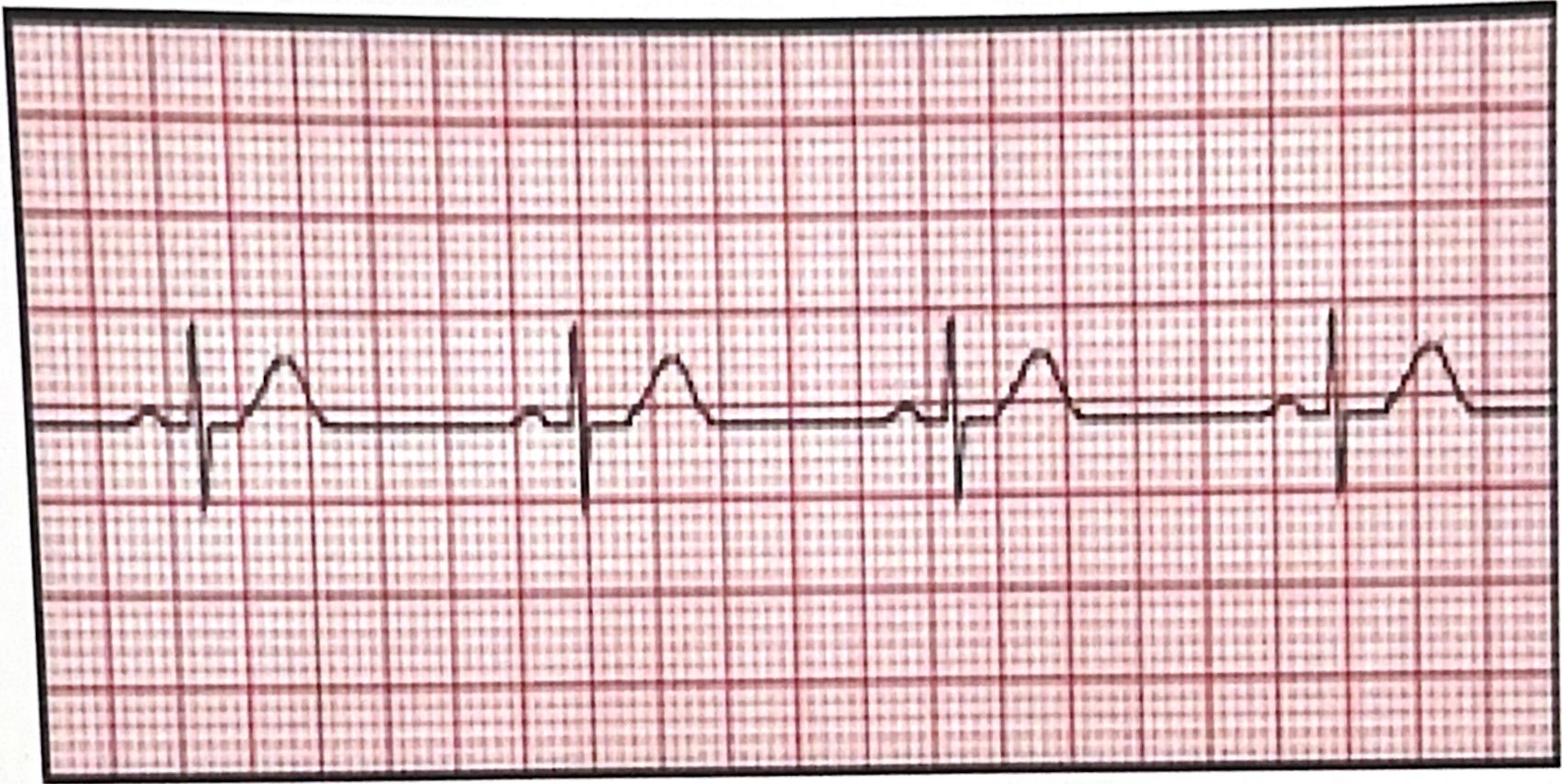
Answer: Asystole



9. Heart Rate 90 Regular or irregular regular P wave before each QRS ✓

Between PR (0.12-0.20) 0.16 QRS 0.06-0.12 0.08

Answer: normal sinus rhythm



10. Heart Rate 40 Regular or irregular \_\_\_\_\_ P wave before each QRS ✓

Between PR (0.12-0.20) 0.16 QRS 0.06-0.12 0.16

Answer: Sinus Bradycardia