Scenario-based Clinical Examination

Sample Cases (Rev. 03.01.22)

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Disclaimer

- The following sample questions and answers were composed and vetted by a panel of experts in orthodontics and are intended to provide an example of the types of cases and questions that make up the actual scenario-based clinical examination.
- After the examination, trained examiners, who are all board certified orthodontists, will score the typed responses using rubrics as guides to their decision making.
- Rubrics help to create consistency in the decisions the examiners make while grading an examinees typed responses. The rubrics are not absolute, as there may be other acceptable answers that are not listed.

Disclaimer Continued

- The ABO has developed multiple versions of the case-based scenario examination to be used during a test administration cycle. Although the set of cases and questions used on the different versions will not all be the same, all versions follow the same content framework as defined by the practice analysis study.
- Scores will be computed using equating procedures to ensure that all versions are of the same difficulty.
- Review of these sample cases does not guarantee that a candidate will pass the examination.
- Examinee responses to exam questions will be typed out and should be in numbered list format (i.e., short and concise, no essay responses).

Sample Case #8

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Sample Case #8

Opening Scenario:

A 10-year, 0-month-old male patient presents with the chief complaint, “my dentist said I have a lot of crowding.”

Sample Case #8
Question 1

Classification

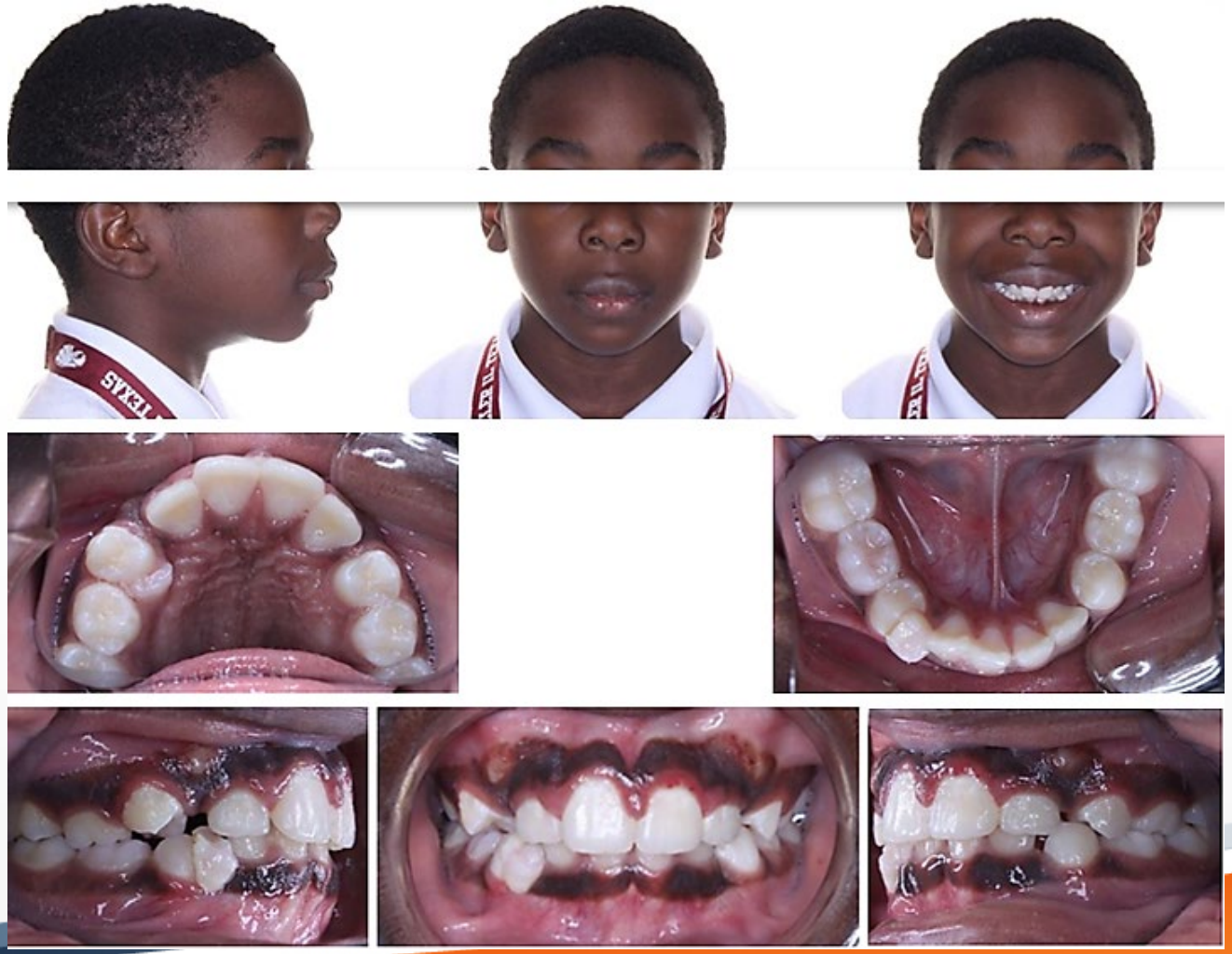
Domain 1: Data Gathering and Diagnosis

Prompt

Identify the significant skeletal findings for this patient. Please respond in numbered list format below.

Sample Case #8

Question 1



Sample Case #8

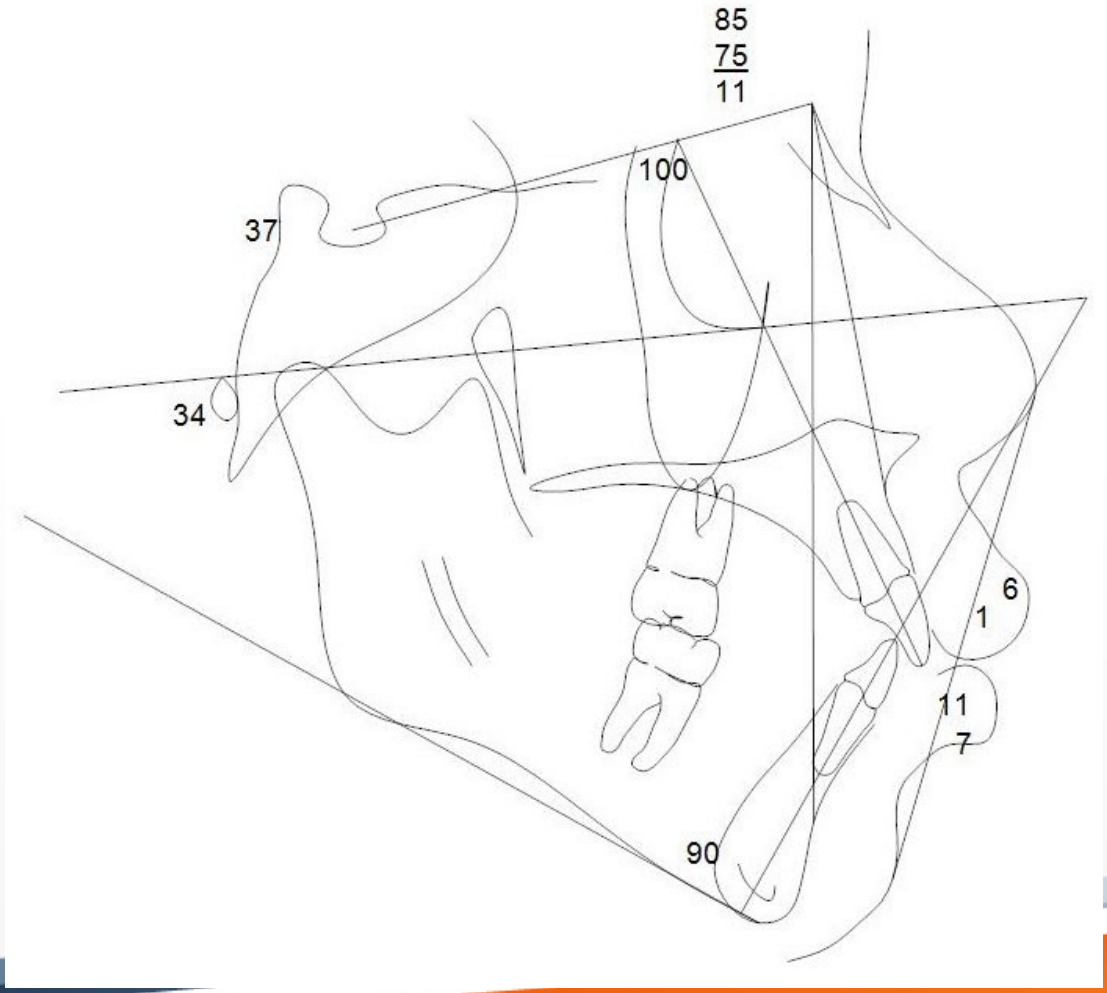
Question 1

Sample Case #8

Question 1

Sample Case #8

Question 1



Sample Case #8
Question 1

Fully Proficient Model Response

The examinee's response must include four or more of the following:

1. Steep mandibular plane angle or hyperdivergent growth pattern
2. Protrusive maxilla
3. Retrusive mandible
4. Short ramus
5. Skeletal class II

Sample Case #8
Question 1

Borderline Proficient Model Response

- The examinee must include three of the above.

Not Proficient Model Response

- The examinee includes two or fewer of the above.

Sample Case #8
Question 2

Classification

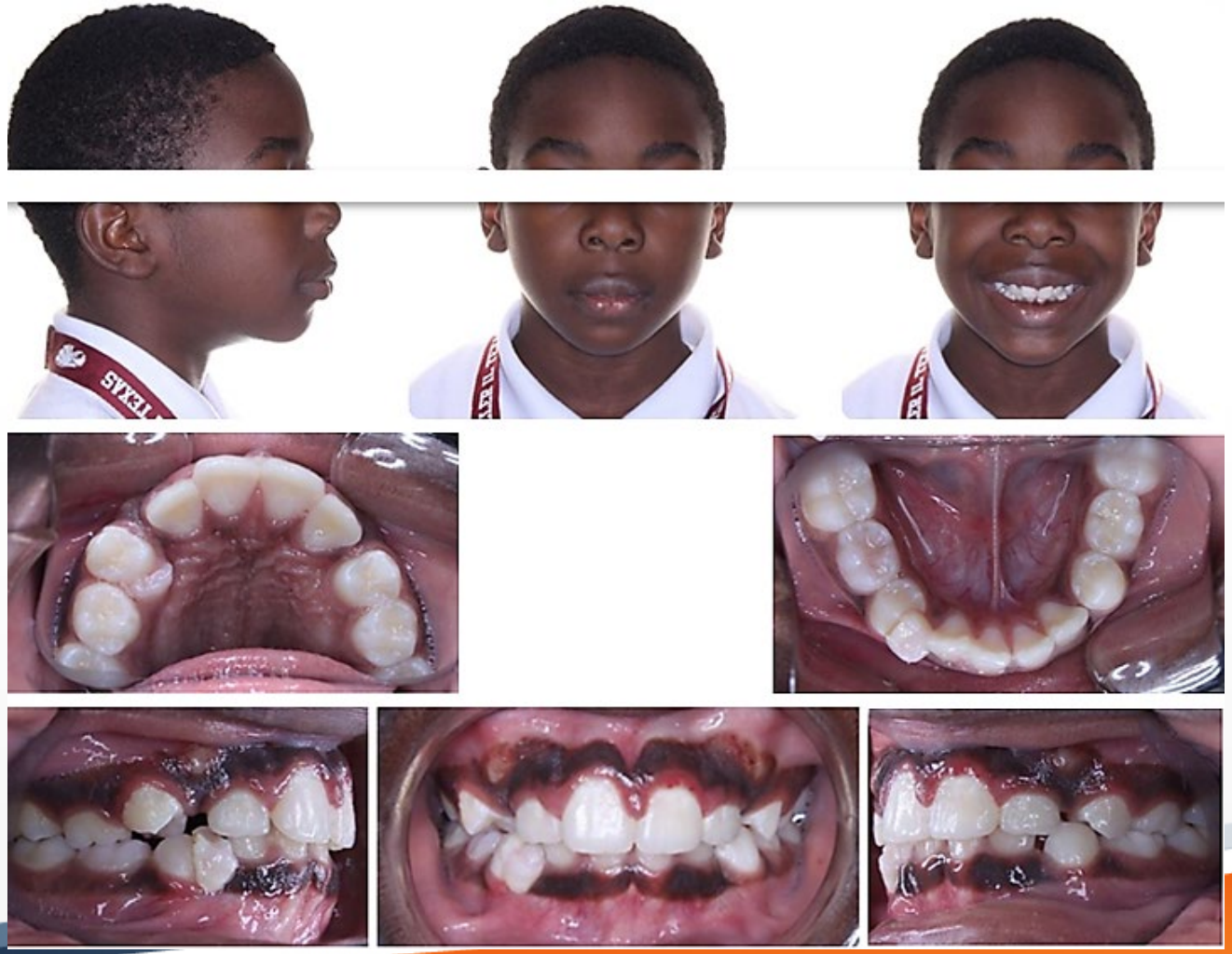
Domain 1: Data Gathering and Diagnosis

Prompt

Identify the significant dental findings for this patient. Please respond in numbered list format below.

Sample Case #8

Question 2



Sample Case #8

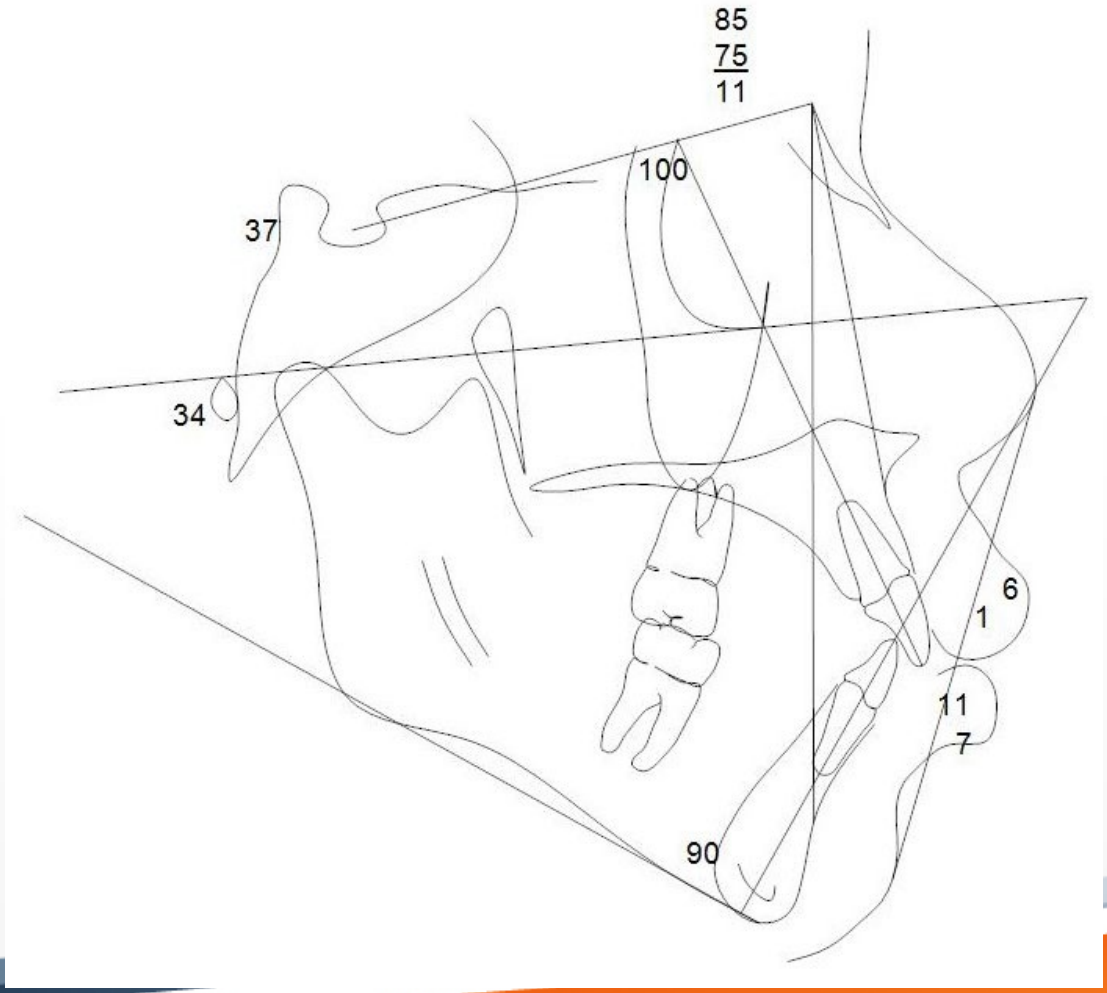
Question 2

Sample Case #8

Question 2

Sample Case #8

Question 2



Sample Case #8
Question 2

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Class I malocclusion
2. Severe maxillary crowding
3. Severe mandibular crowding
4. Blocked out mandibular canines
5. Blocked out maxillary canines
6. Deep overbite

Sample Case #8
Question 2

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #8
Question 3

Classification

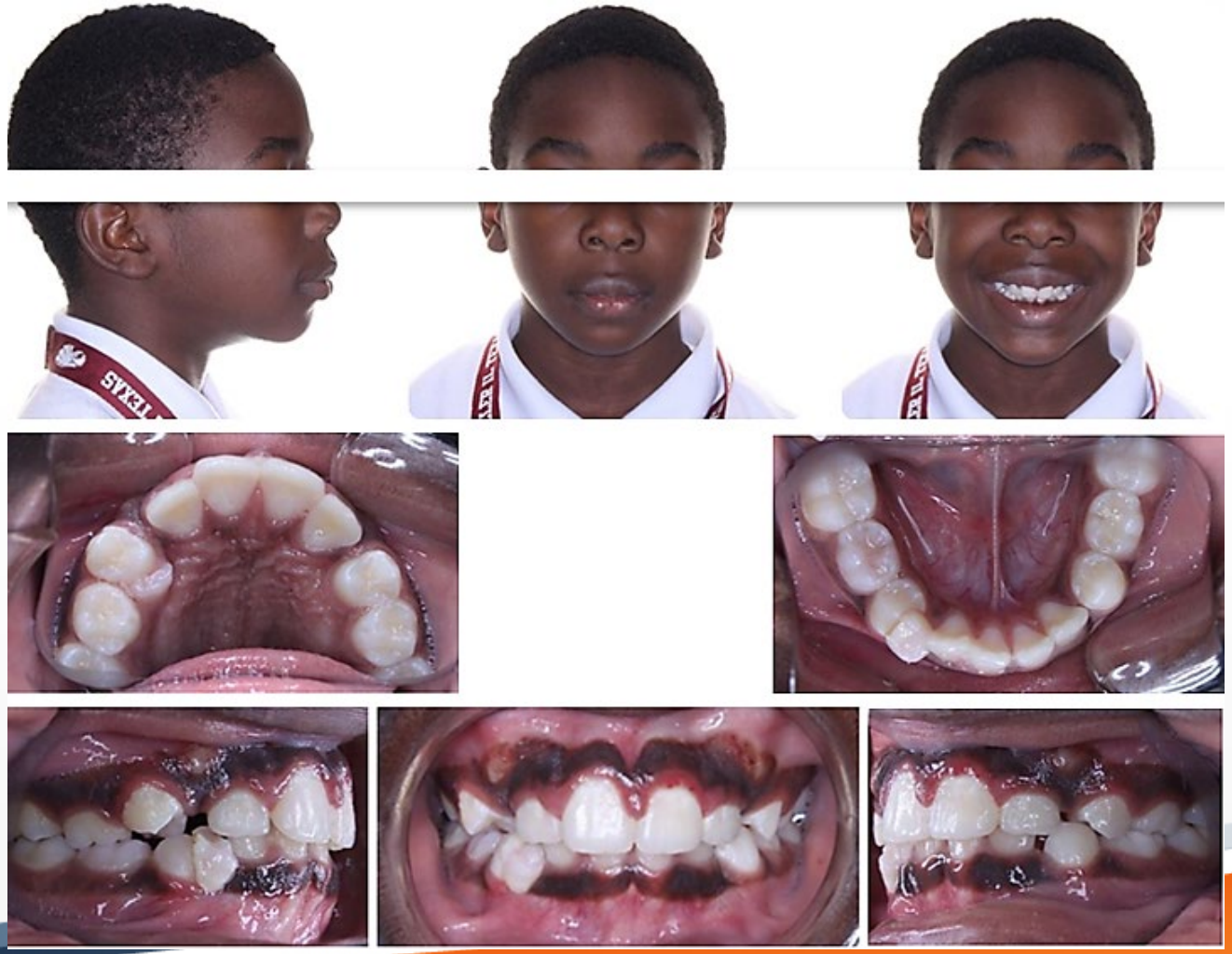
Domain 2: Treatment Objectives and Planning

Prompt

What would be the negative consequences of nonextraction treatment for this patient? Please respond in numbered list format below.

Sample Case #8

Question 3



Sample Case #8

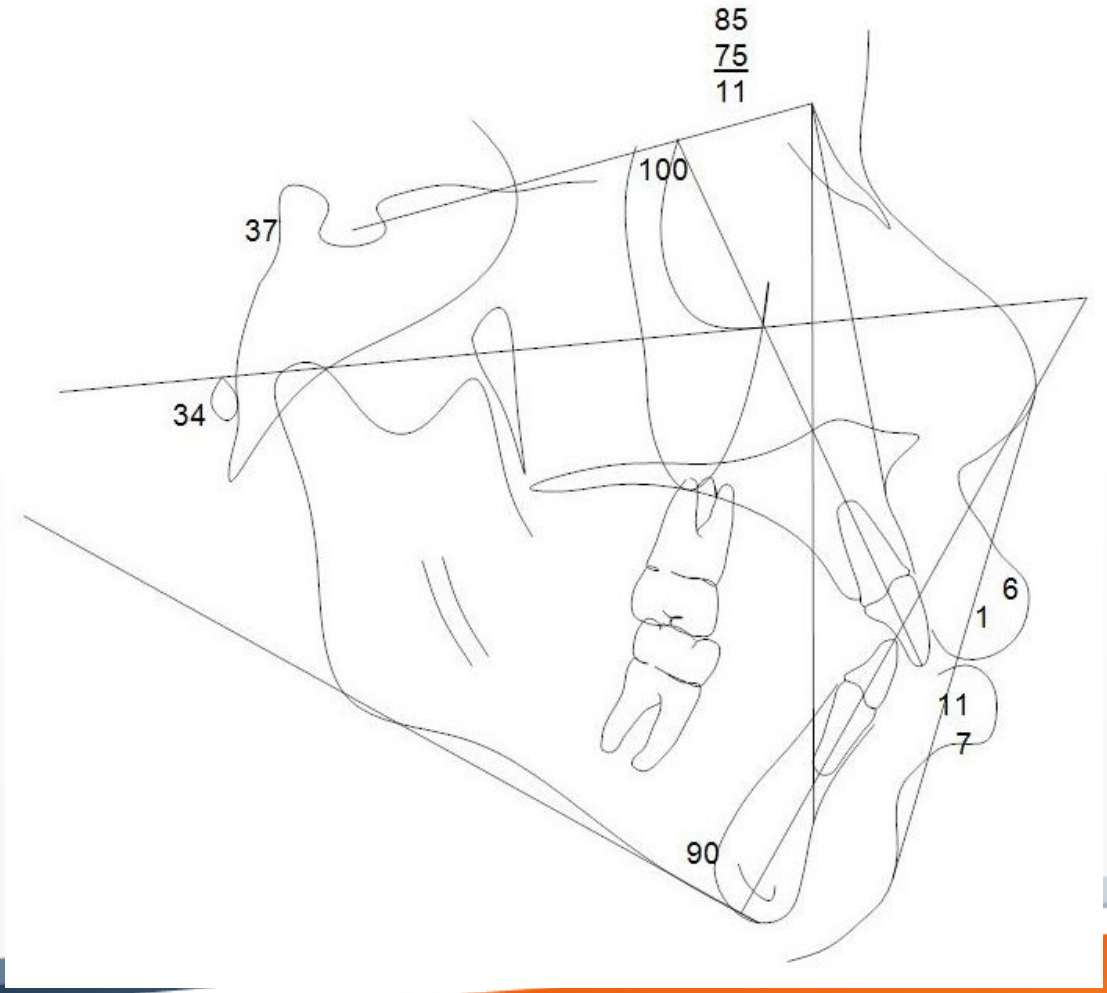
Question 3

Sample Case #8

Question 3

Sample Case #8

Question 3



Sample Case #8
Question 3

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Increased vertical dimension (increased mandibular plane angle)
2. Increased proclination of incisors (increased bimaxillary protrusion)
3. Increased lip incompetence
4. Increased facial convexity
5. Compromised periodontal condition
6. Compromised esthetics

Sample Case #8
Question 3

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #8
Question 4

Classification

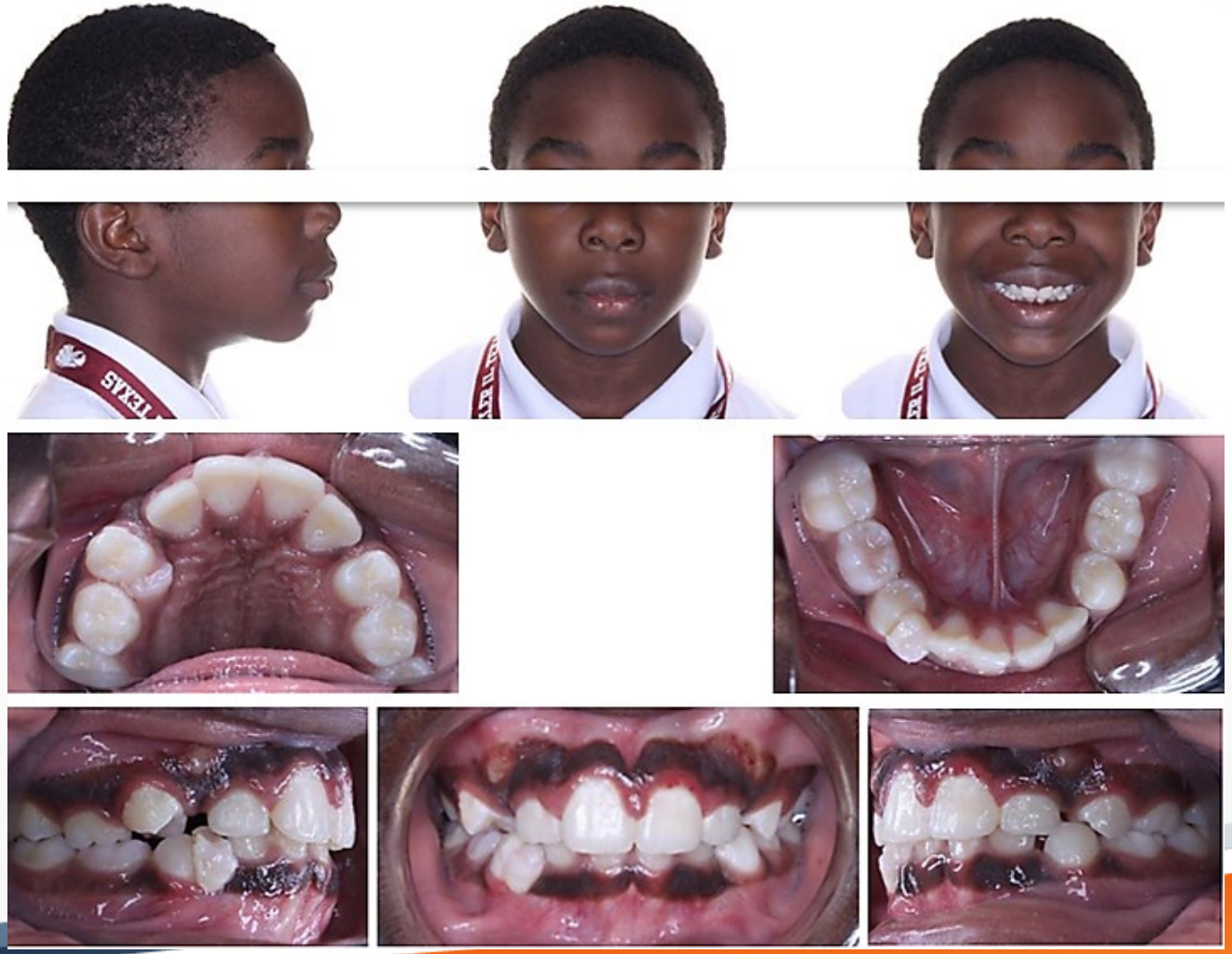
Domain 3: Treatment Implementation and Management

Prompt

Assuming the patient is in comprehensive fixed orthodontic treatment and the four first bicuspids are extracted, list METHODS to control the vertical dimension. Please respond in numbered list format below.

Sample Case #8

Question 4



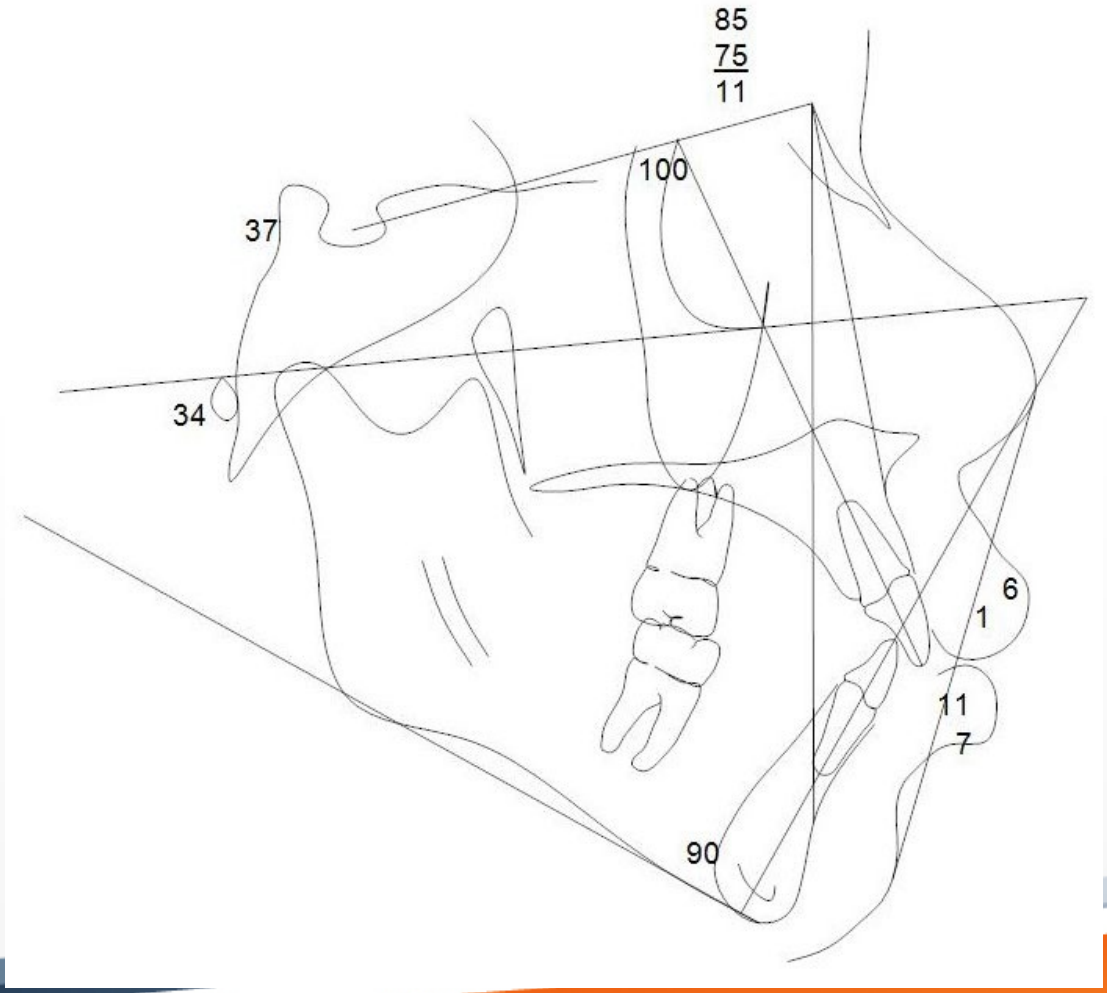
Sample Case #8
Question 4

Sample Case #8

Question 4

Sample Case #8

Question 4



Sample Case #8
Question 4

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. High-pull headgear (accept vertical pull chin cup)
2. Maxillary vertical holding appliance (e.g., low-hanging transpalatal arch)
3. Avoid the use of intermaxillary elastics
4. Level the curve of Spee with intrusion arch for mandibular incisors.
5. TADs
6. Posterior bite blocks

Sample Case #8
Question 4

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #9

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Sample Case #9

Opening Scenario:

A 12-year, 10-month-old female patient presents for orthodontic treatment with the chief complaint that “I want straight teeth.”

Sample Case #9
Question 1

Classification

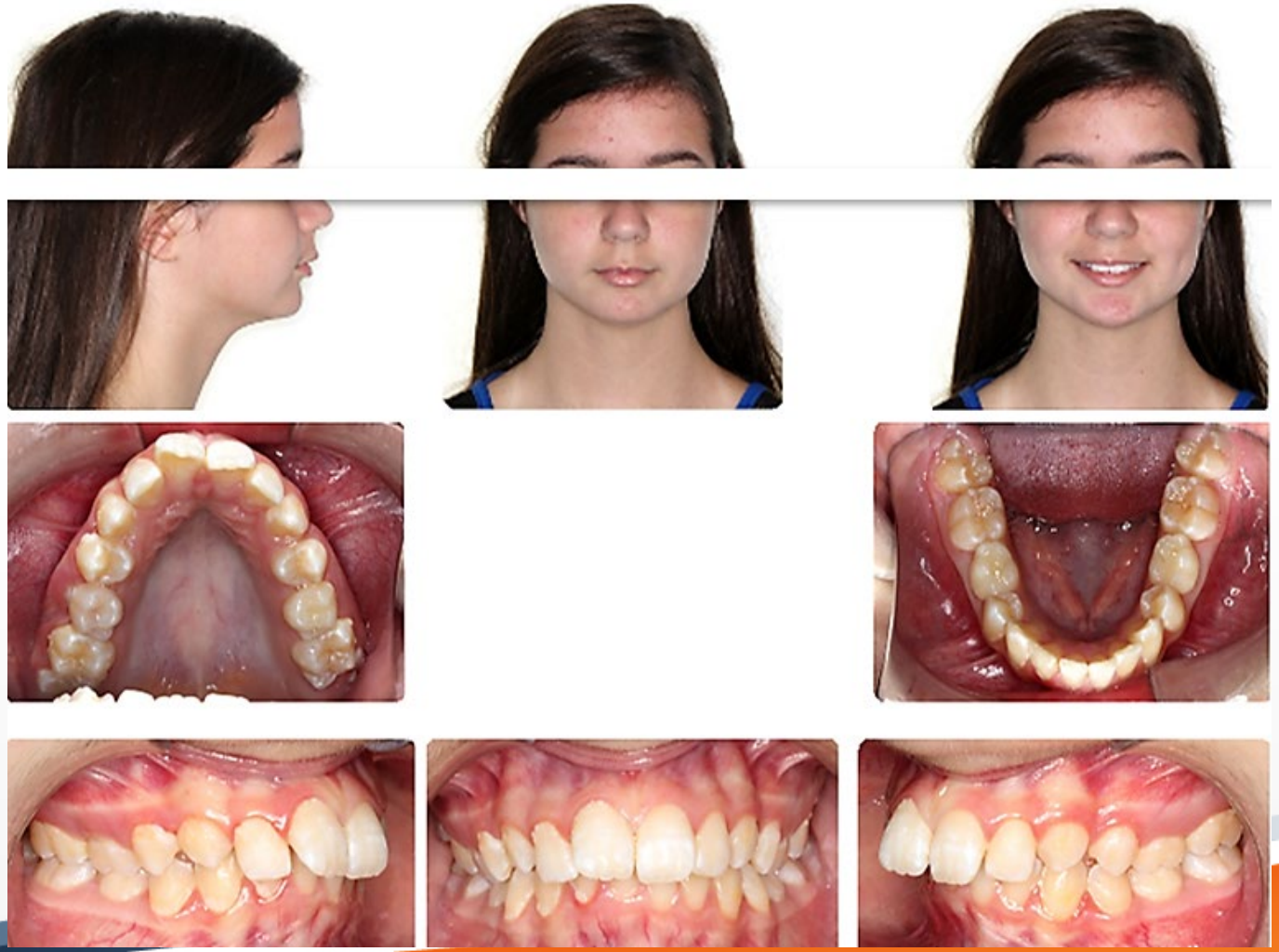
Domain 2: Treatment Objectives and Planning

Prompt

Develop a nonextraction treatment plan for this patient. Please respond in numbered list format below.

Sample Case #9

Question 1



Sample Case #9

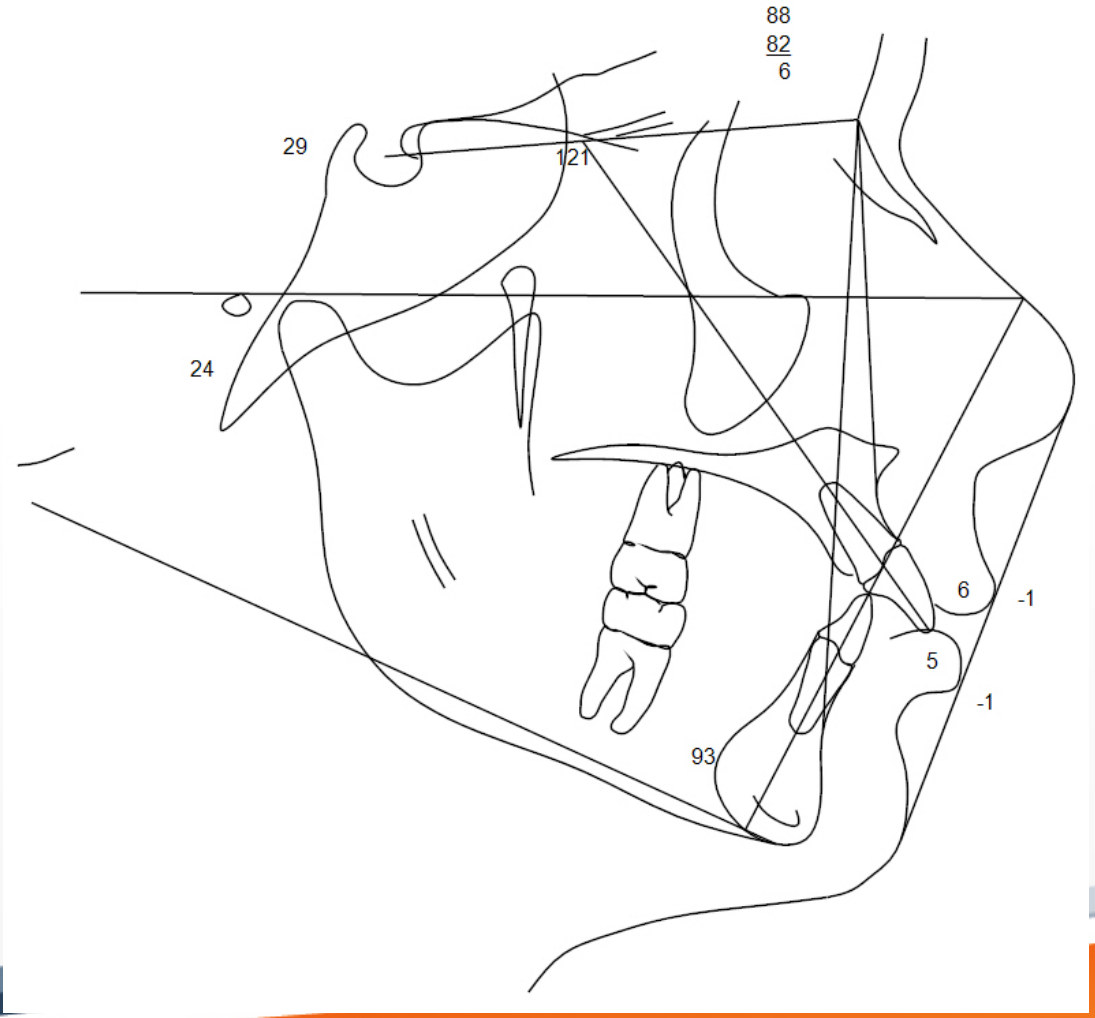
Question 1

Sample Case #9

Question 1

Sample Case #9

Question 1



Sample Case #9
Question 1

Fully Proficient Model Response

The examinee's response must include four or more of the following:

1. Growth modification with headgear
2. Maxillary expansion
3. Mandibular lingual holding arch
4. Level mandibular arch, controlling incisor proclination.
5. Minimize the use of interarch Class II mechanics (elastics, Class II corrector, or Herbst).

Sample Case #9
Question 1

Borderline Proficient Model Response

- The examinee must include three of the above.

Not Proficient Model Response

- The examinee includes two or fewer of the above.

Sample Case #9
Question 2

Classification

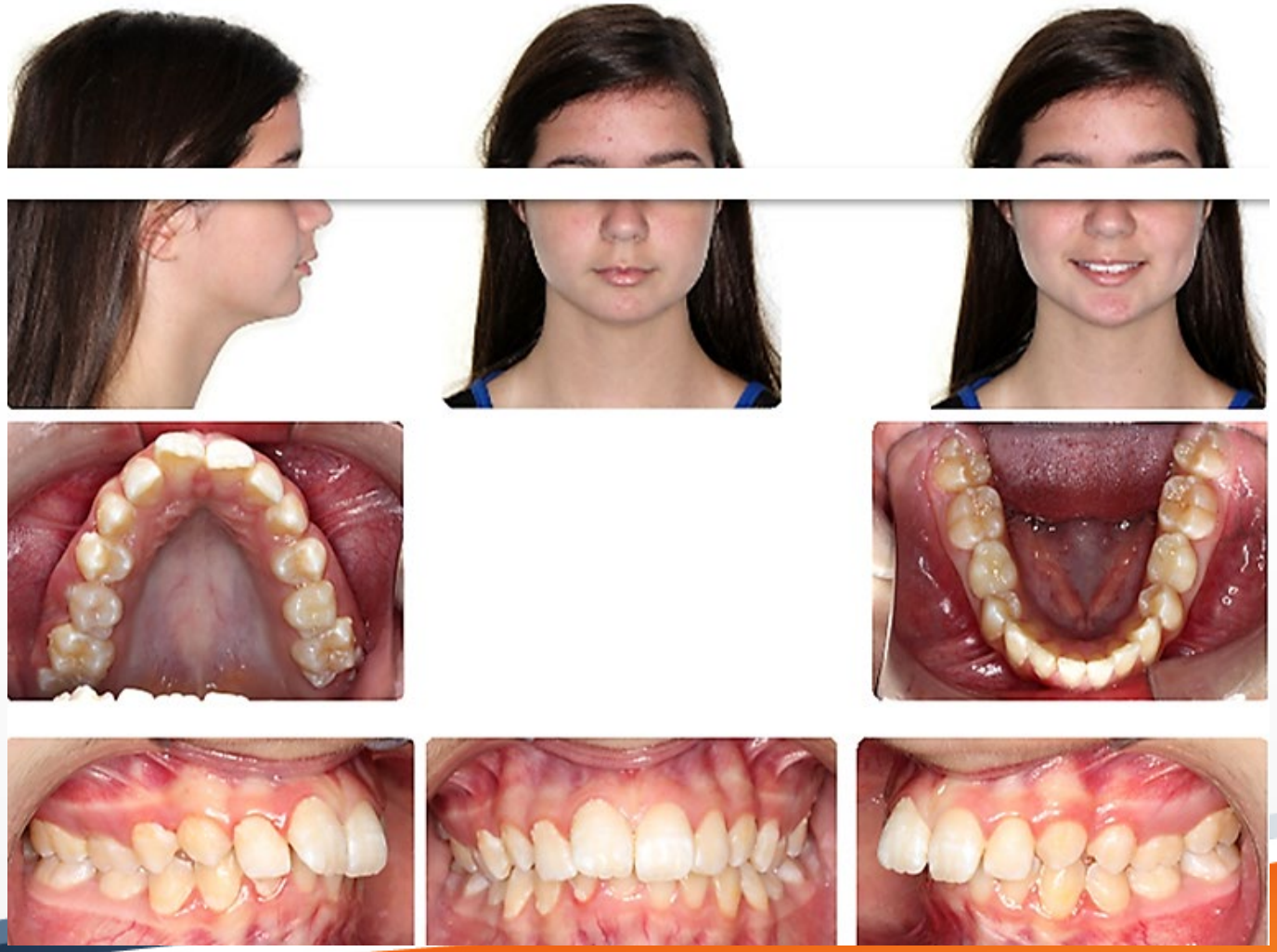
Domain 3: Treatment Implementation and Management

Prompt

What are appropriate METHODS to correct the curve of Spee in this case? Please respond in numbered list format below.

Sample Case #9

Question 2



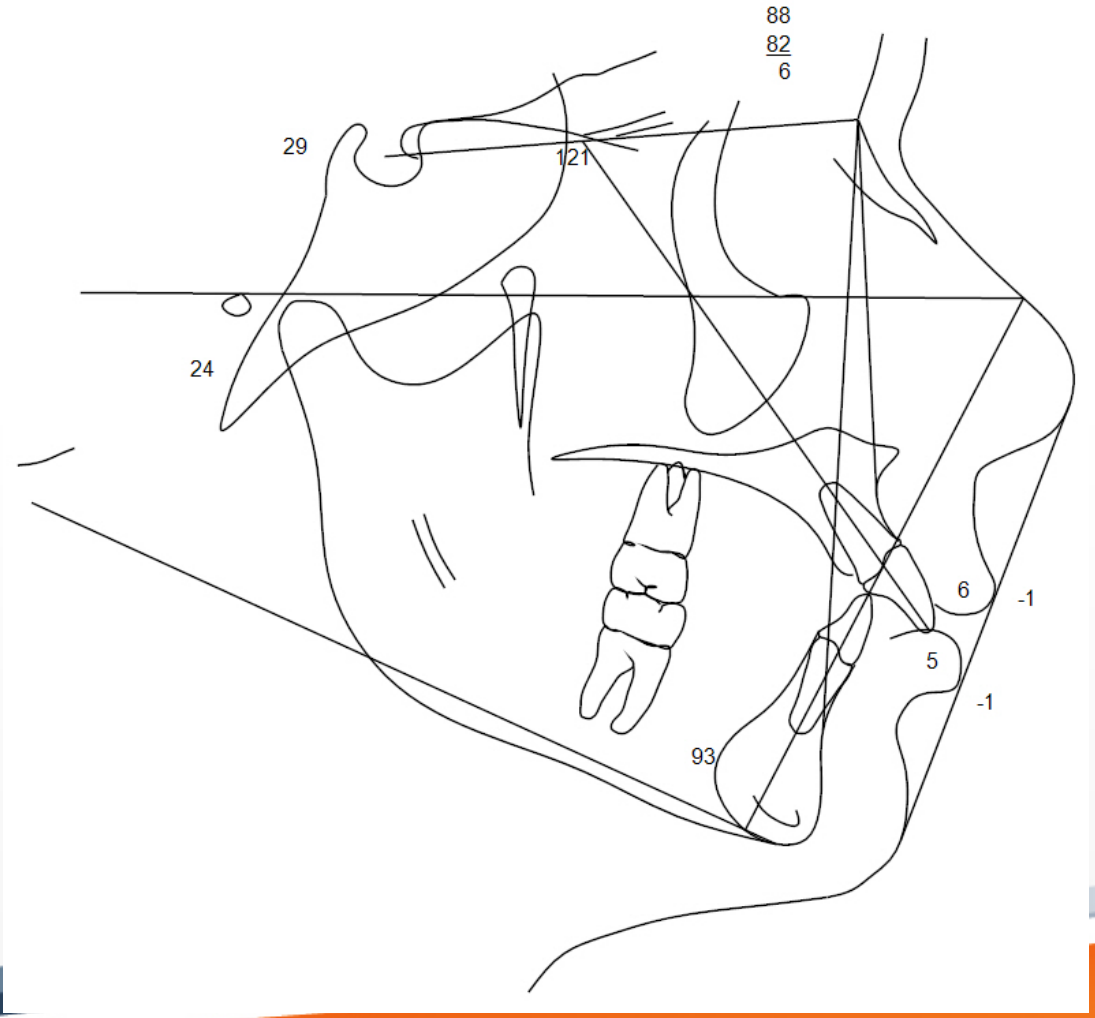
Sample Case #9
Question 2

Sample Case #9

Question 2

Sample Case #9

Question 2



Sample Case #9
Question 2

Fully Proficient Model Response

The examinee's response must include all of the following:

1. Large dimension rectangular wire with reverse curve of Spee, tied back or cinched back
2. Utility arch to intrude mandibular anterior teeth
3. TADs to aid in the intrusion of the mandibular incisors

Sample Case #9
Question 2

Borderline Proficient Model Response

- The examinee must include two of the above.

Not Proficient Model Response

- The examinee includes one or fewer of the above.

Sample Case #9
Question 3

Classification

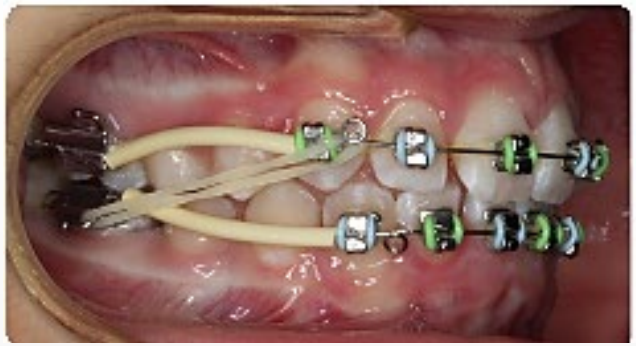
Domain 3: Treatment Implementation and Management

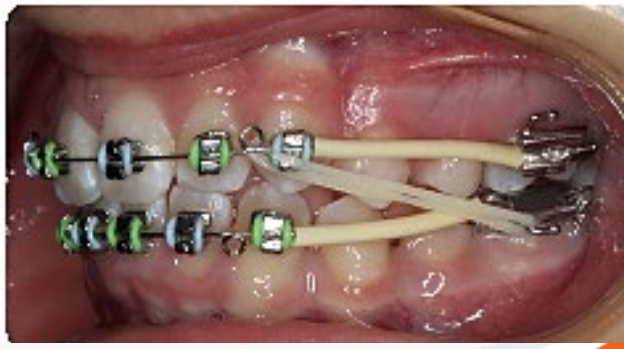
Prompt

Describe the concerns associated with mechanotherapy at this point in treatment. Please respond in numbered list format below.

Sample Case #9

Question 3





Sample Case #9
Question 3

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Excessive mesial rotations of the maxillary molars
2. Excessive mesial rotations of the mandibular molars
3. Excessive proclination of the mandibular incisors
4. Excessive lingual inclination of the mandibular first molars
5. Inappropriate utilization of the leeway space due to lack of anchorage preparation
6. Class II mechanics have been initiated on round wire.

Sample Case #9
Question 3

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #9
Question 4

Classification

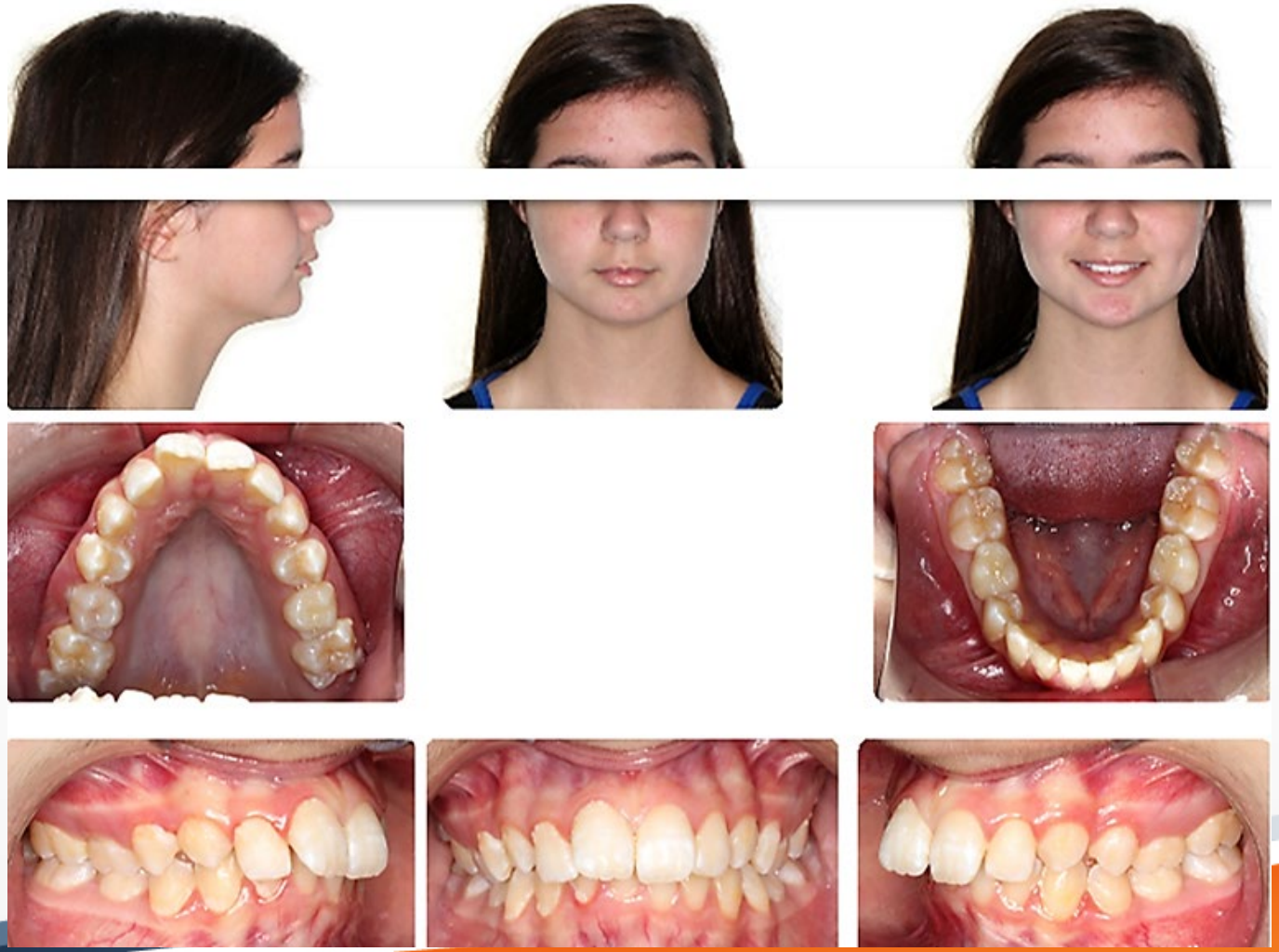
Domain 4: Critical Analysis and Outcomes Assessment

Prompt

Describe the future concerns for the dentition and supporting periodontium. Please respond in numbered list format below.

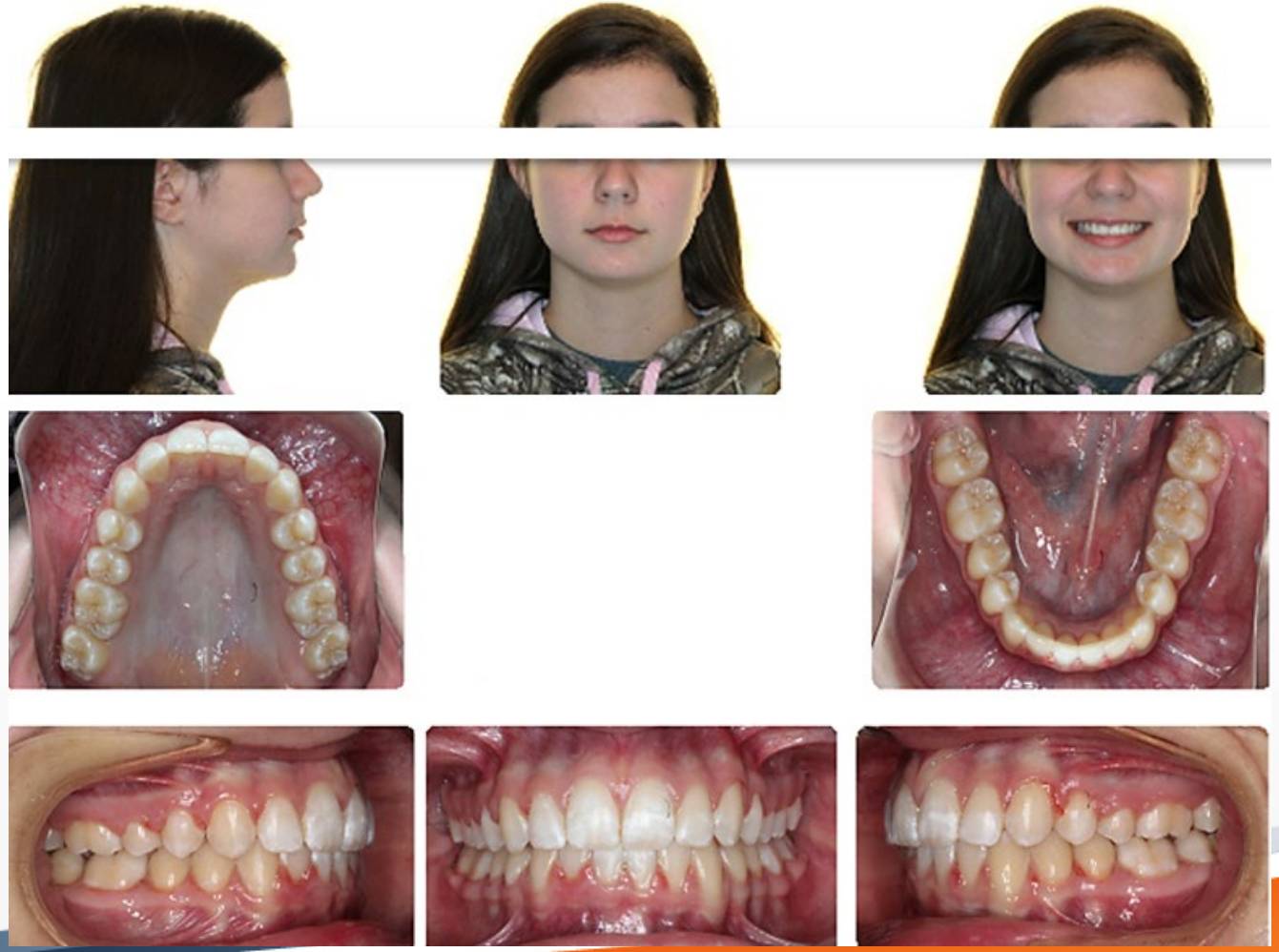
Sample Case #9

Question 4



Sample Case #9

Question 4



Sample Case #9

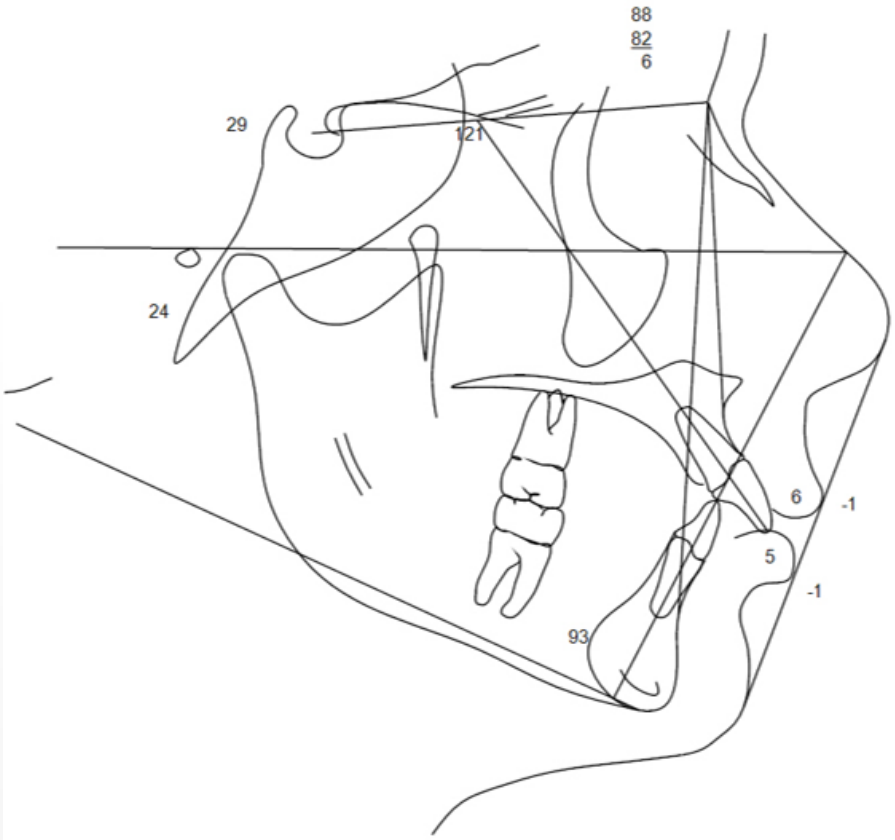
Question 4

Pre-Tx

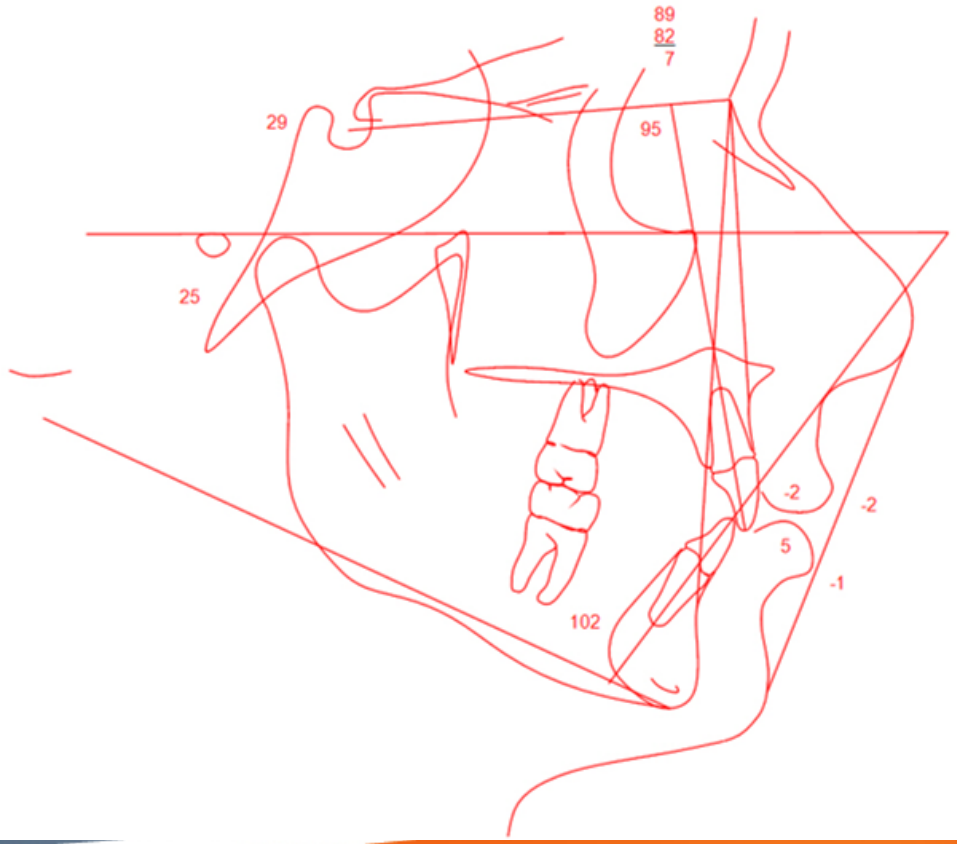
Post-Tx

Sample Case #9
Question 4

Pre-TX



Post-TX



Sample Case #9
Question 4

Fully Proficient Model Response

The examinee's response must include all of the following:

1. Gingival recession
2. Periodontal bone loss
3. Mandibular anterior crowding (relapse)
4. Stability of Class II correction

Sample Case #9
Question 4

Borderline Proficient Model Response

- The examinee must include three of the above.

Not Proficient Model Response

- The examinee includes two or fewer of the above.

Sample Case #10

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Sample Case #10

Opening Scenario:

A 15-year, 6-month-old male patient presents with the chief complaint that “two of my front teeth are crooked and stick into my lip.”

Sample Case #10
Question 1

Classification

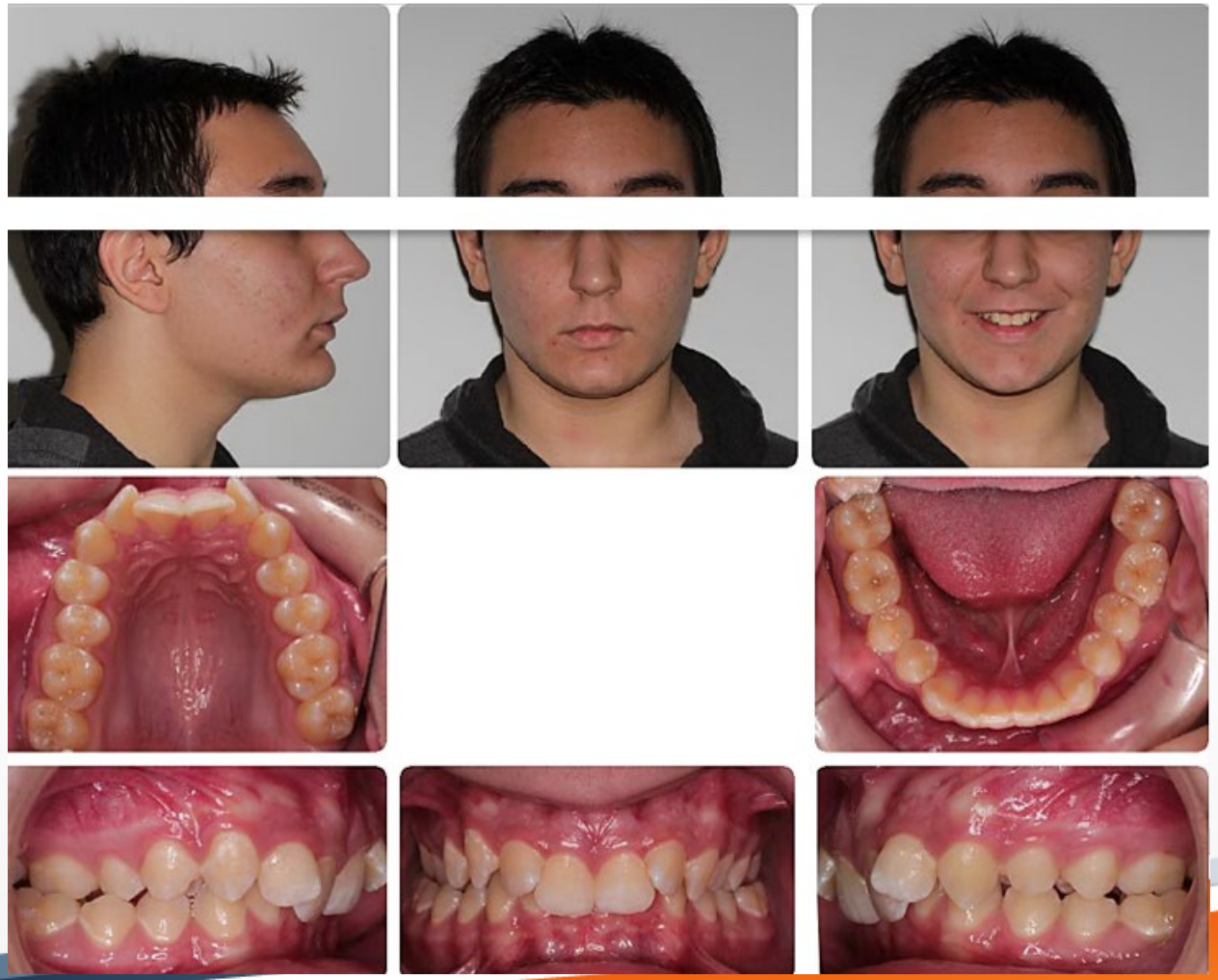
Domain 1: Data Gathering and Diagnosis

Prompt

Provide a facial diagnosis for this patient. Please respond in numbered list format below.

Sample Case #10

Question 1



Sample Case #10

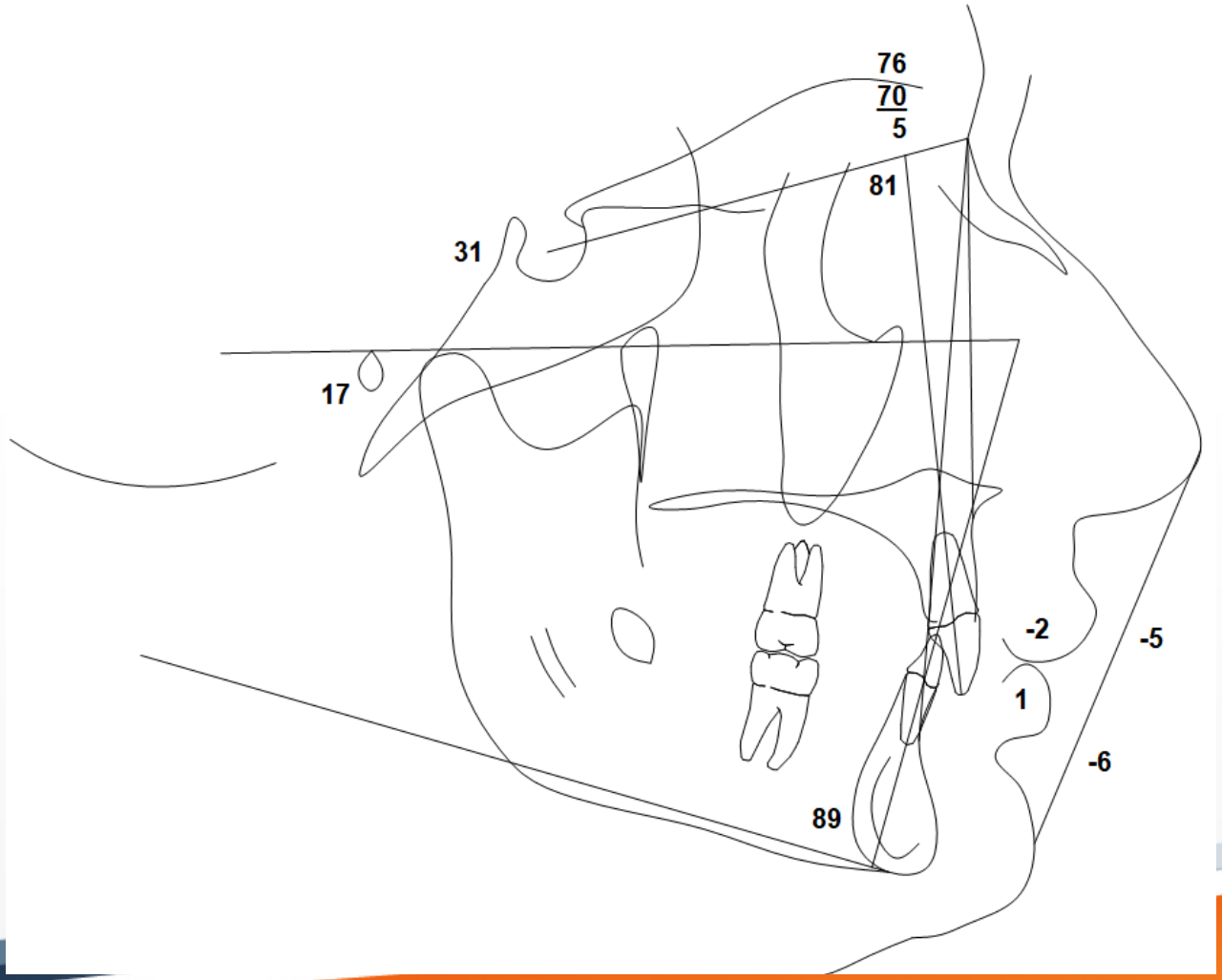
Question 1

Sample Case #10

Question 1

Sample Case #10

Question 1



Sample Case #10
Question 1

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Convex profile
2. Obtuse nasolabial angle
3. Deep mentolabial sulcus
4. Prominent chin
5. Decreased lower anterior facial height
6. Retrusive lips relative to the E-line

Sample Case #10
Question 1

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #10
Question 2

Classification

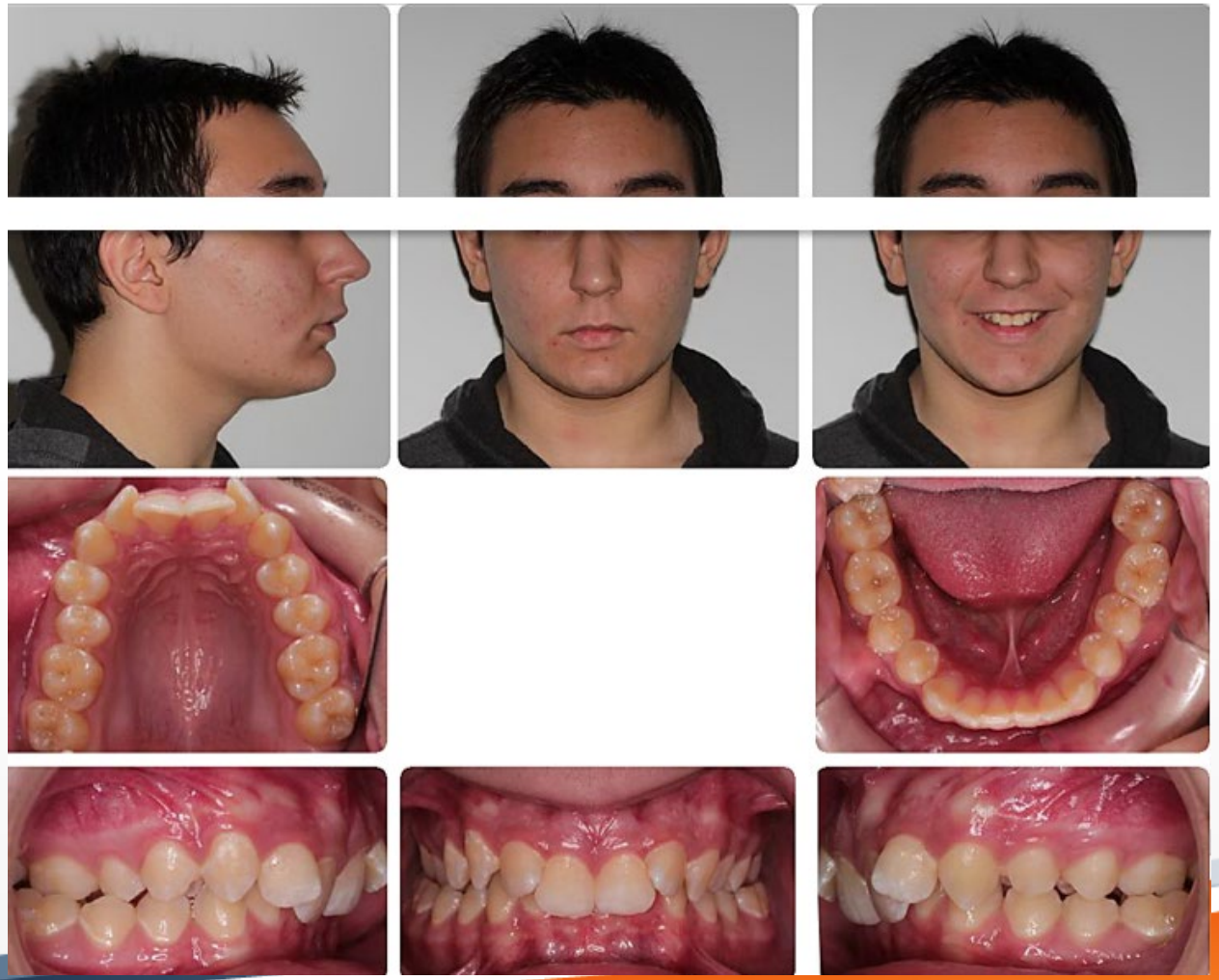
Domain 2: Treatment Objectives and Planning

Prompt

Identify the dental findings for this patient. Please respond in numbered list format below.

Sample Case #10

Question 2



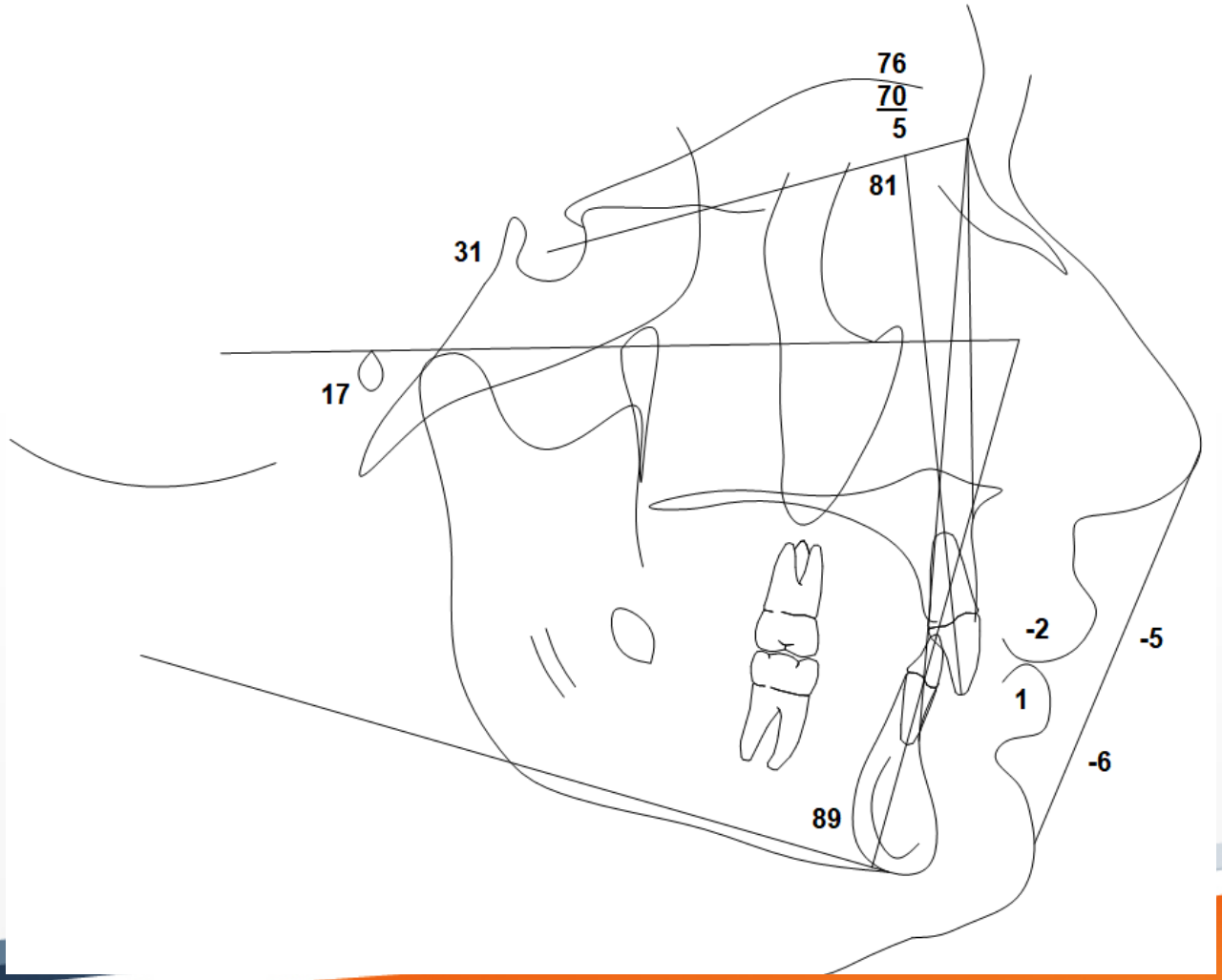
Sample Case #10

Question 2

Sample Case #10

Question 2

Sample Case #10
Question 2



Sample Case #10
Question 2

Fully Proficient Model Response

The examinee's response must include eight or more of the following:

1. Class II division 2
2. Deep overbite (or impinging)
3. Deep curve of Spee
4. Maxillary reverse curve of Spee (or supraeruption of maxillary incisors)
5. Bilateral posterior crossbite
6. Mandibular crowding
7. Maxillary crowding
8. Rotations
9. Retroclined (or uprighted) maxillary central incisors
10. Impacted third molars

Sample Case #10
Question 2

Borderline Proficient Model Response

- The examinee must include seven of the above.

Not Proficient Model Response

- The examinee includes six or fewer of the above.

Sample Case #10
Question 3

Classification

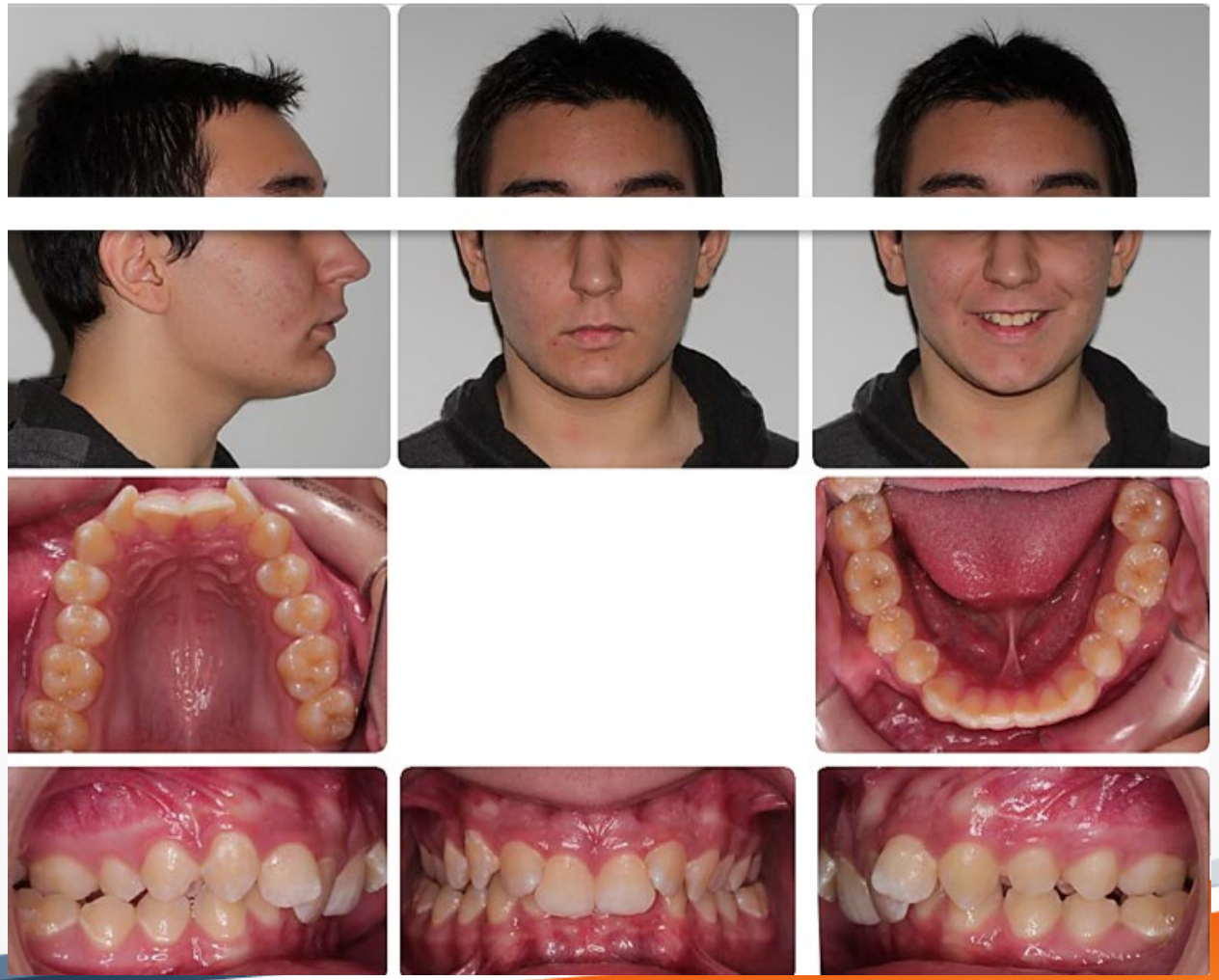
Domain 2: Treatment Objectives and Planning

Prompt

This patient desires orthognathic surgery. List the key components of an ideal treatment plan. Please respond in numbered list format below.

Sample Case #10

Question 3



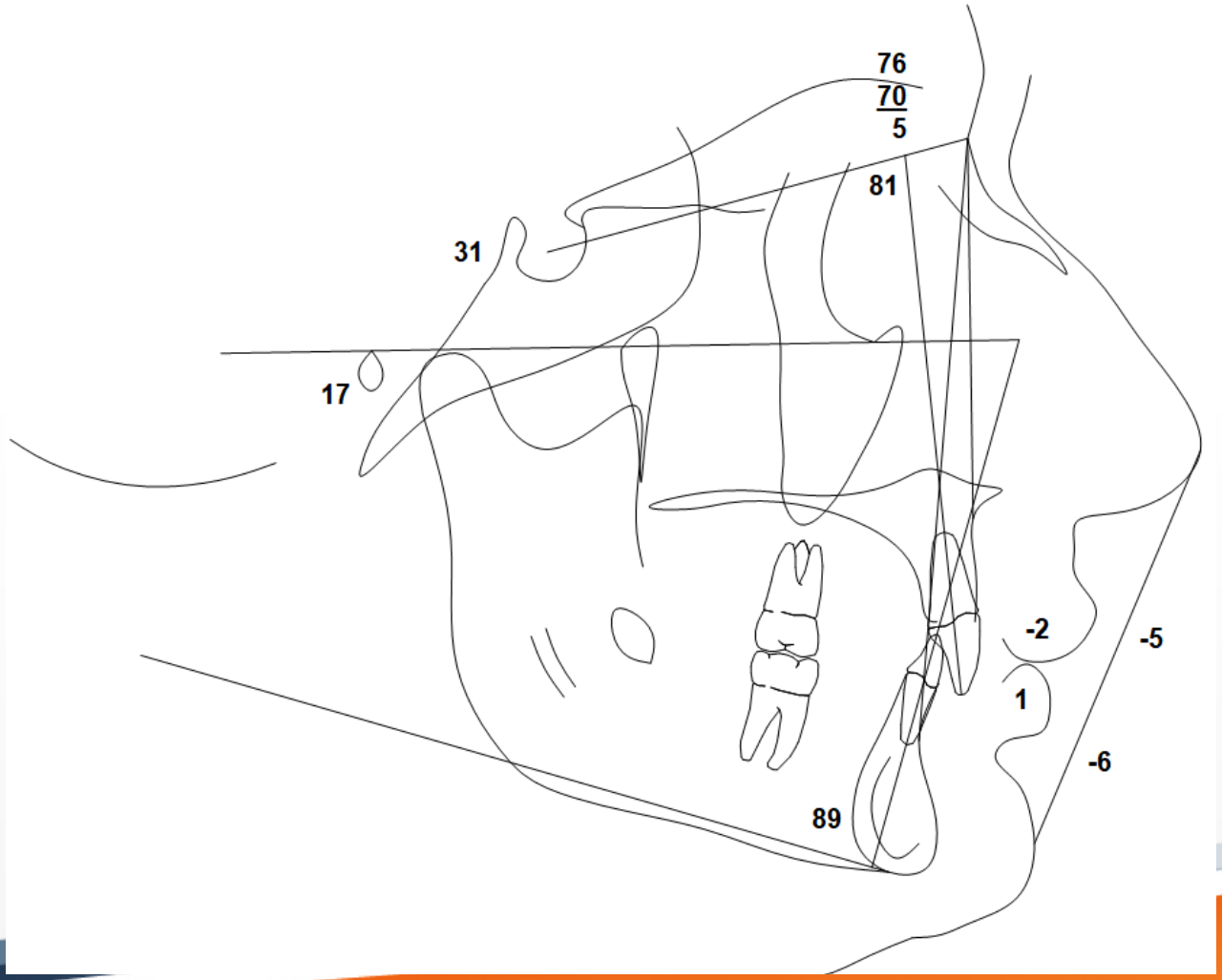
Sample Case #10

Question 3

Sample Case #10

Question 3

Sample Case #10
Question 3



Sample Case #10
Question 3

Fully Proficient Model Response

The examinee's response must include:

- Surgical mandibular advancement
- Palatal expansion (SARPE or TADs supported)

And six or more of the following:

1. Extract third molars
2. Level and align maxillary arch
3. Align mandibular arch
4. Maintain the mandibular curve of Spee presurgically
5. Presurgical arch coordination
6. Postsurgical leveling of the curve of Spee
7. Reevaluate for A-P reduction genioplasty

Sample Case #10
Question 3

Borderline Proficient Model Response

The examinee's response must include:

- Surgical mandibular advancement
- Palatal expansion (SARPE or TADs supported)

And five of the above:

Not Proficient Model Response

The examinee's response fails to include:

- Surgical mandibular advancement
- Palatal expansion (SARPE or TADs supported)

Or includes both of the above but includes four or fewer of the above:

Sample Case #11

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Sample Case #11

Opening Scenario:

A 14-year, 10-month-old female presents with the chief complaint that “my teeth stick out.”

Sample Case #11
Question 1

Classification

Domain 1: Data Gathering and Diagnosis

Prompt

Identify the skeletal abnormalities for this patient. Please respond in numbered list format below.

Sample Case #11

Question 1

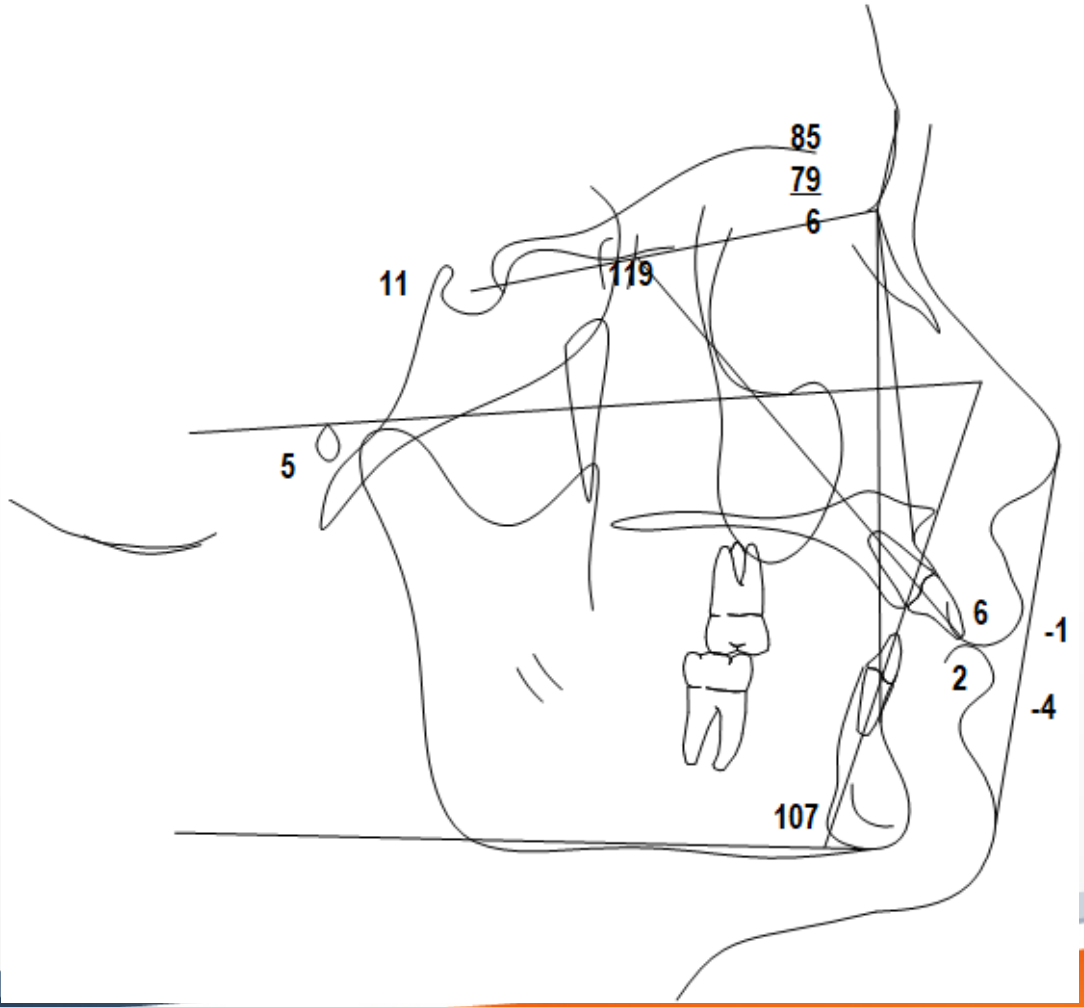
Sample Case #11

Question 1

Sample Case #11

Question 1

Sample Case #11
Question 1



Sample Case #11
Question 1

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Excessive skeletal convexity (or ANB=6 or skeletal Class II)
2. Hypodivergent (or extremely low mandibular plane angle)
3. Retrusive mandible
4. Constricted maxilla
5. Decreased lower anterior facial height
6. Increased posterior facial height

Sample Case #11
Question 1

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.

Sample Case #11
Question 2

Classification

Domain 1: Data Gathering and Diagnosis

Prompt

Identify the dental abnormalities for this patient. Please respond in numbered list format below.

Sample Case #11

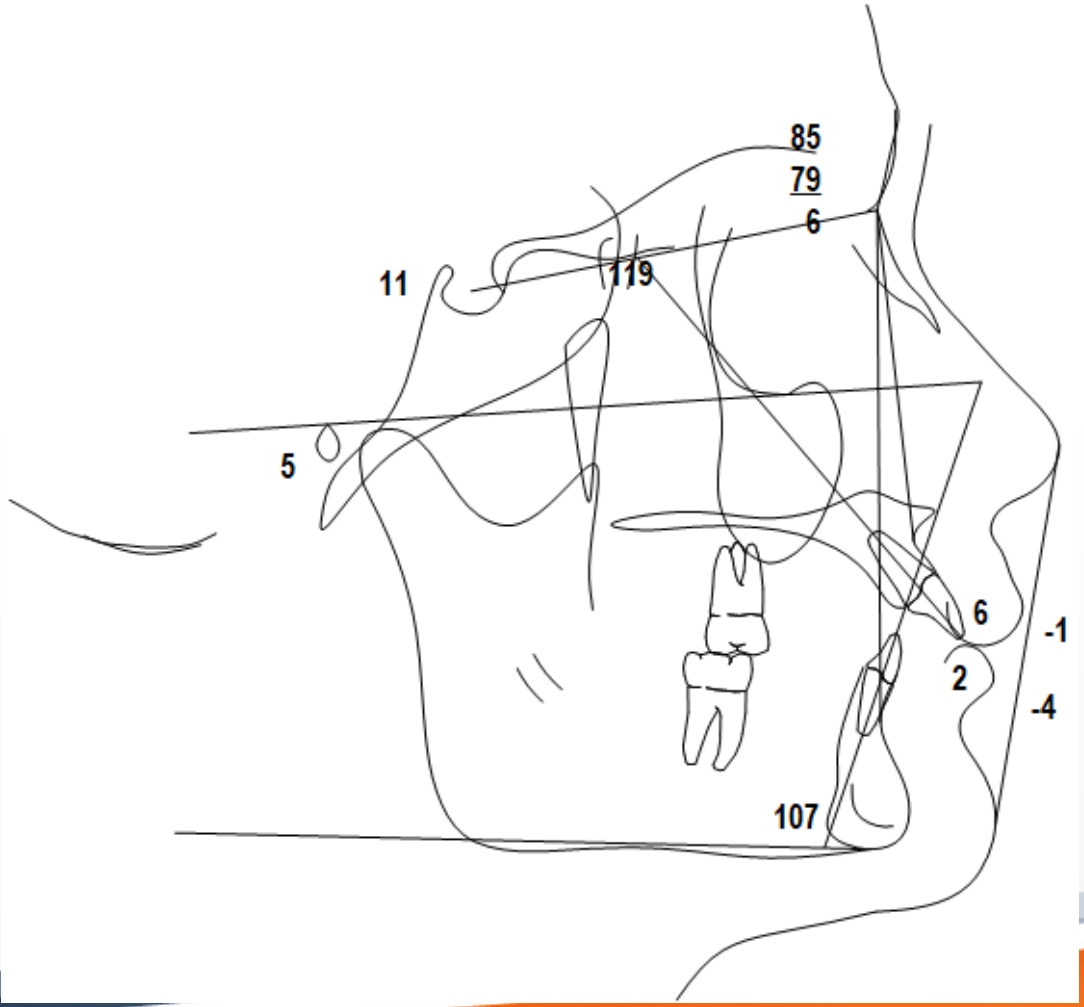
Question 2

Sample Case #11
Question 2

Sample Case #11

Question 2

Sample Case #11
Question 2



Sample Case #11
Question 2

Fully Proficient Model Response

The examinee's response must include six or more of the following:

1. Class II Division 1 malocclusion
2. Proclined maxillary incisors
3. Impinging deep bite
4. Deep curve of Spee
5. Right posterior crossbite
6. Mandibular crowding
7. Maxillary midline diastema
8. Low frenum

Sample Case #11
Question 2

Borderline Proficient Model Response

- The examinee must include five of the above.

Not Proficient Model Response

- The examinee includes four or fewer of the above.

Sample Case #11
Question 3

Classification

Domain 2: Treatment Objectives and Planning

Prompt

Develop an ideal treatment plan to address this patient's dental, skeletal, and facial problems. Please respond in numbered list format below.

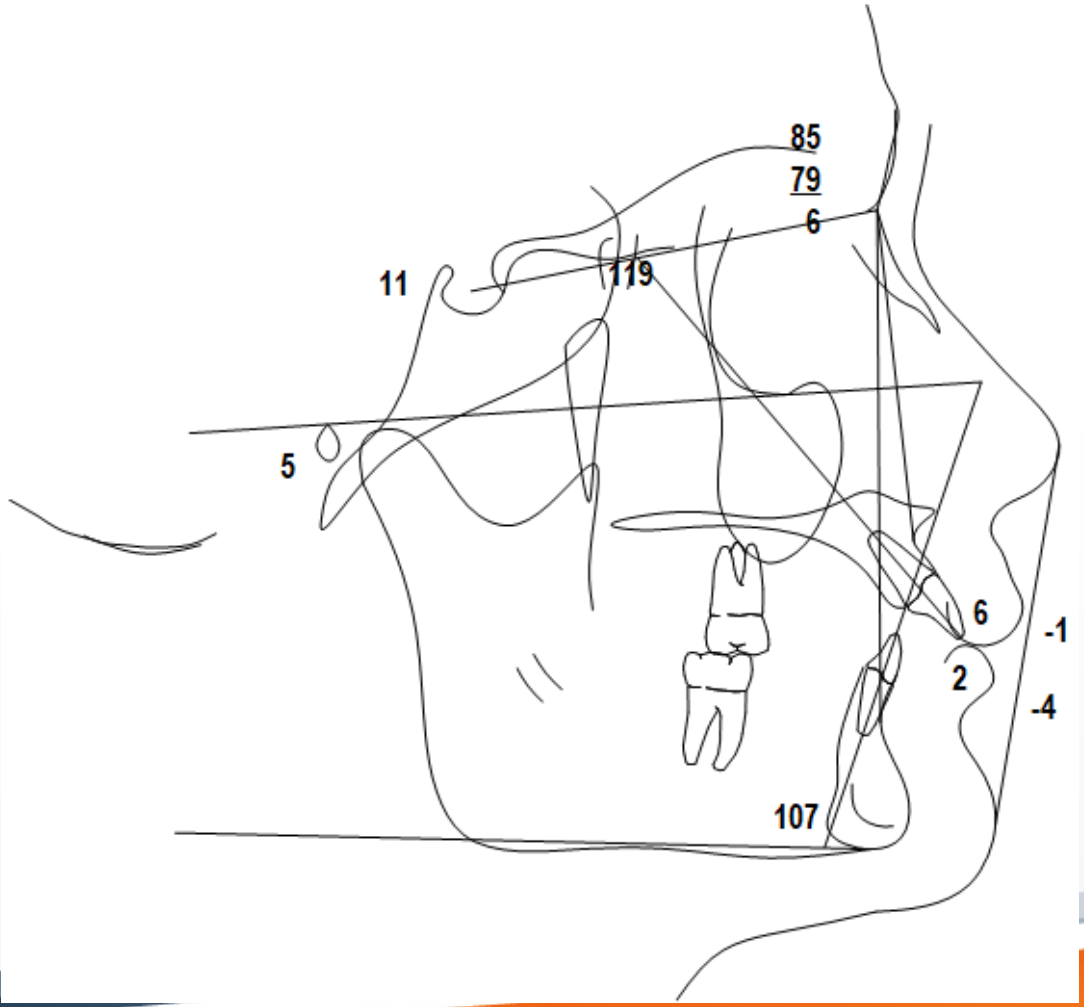
Sample Case #11

Question 3

Sample Case #11
Question 3

Sample Case #11
Question 3

Sample Case #11
Question 3



Sample Case #11
Question 3

Fully Proficient Model Response

The examinee's response must include:

- Surgical mandibular advancement

And five or more of the following:

1. Nonextraction
2. Maxillary expansion
3. Frenectomy post-treatment or after diastema closure
4. Retention: Fixed retainer on maxillary incisors and a Hawley with bite plate
5. Upright and retract maxillary incisors
6. Reduce the deep bite
7. Level the mandibular arch post-surgically

Sample Case #11
Question 3

Borderline Proficient Model Response

The examinee's response must include:

- Surgical mandibular advancement

And four of the above:

Not Proficient Model Response

The examinee's response fails to include:

- Surgical mandibular advancement

Or includes the above but includes three or fewer of the above:

Sample Case #11
Question 4

Classification

Domain 3: Treatment Implementation and Management

Prompt

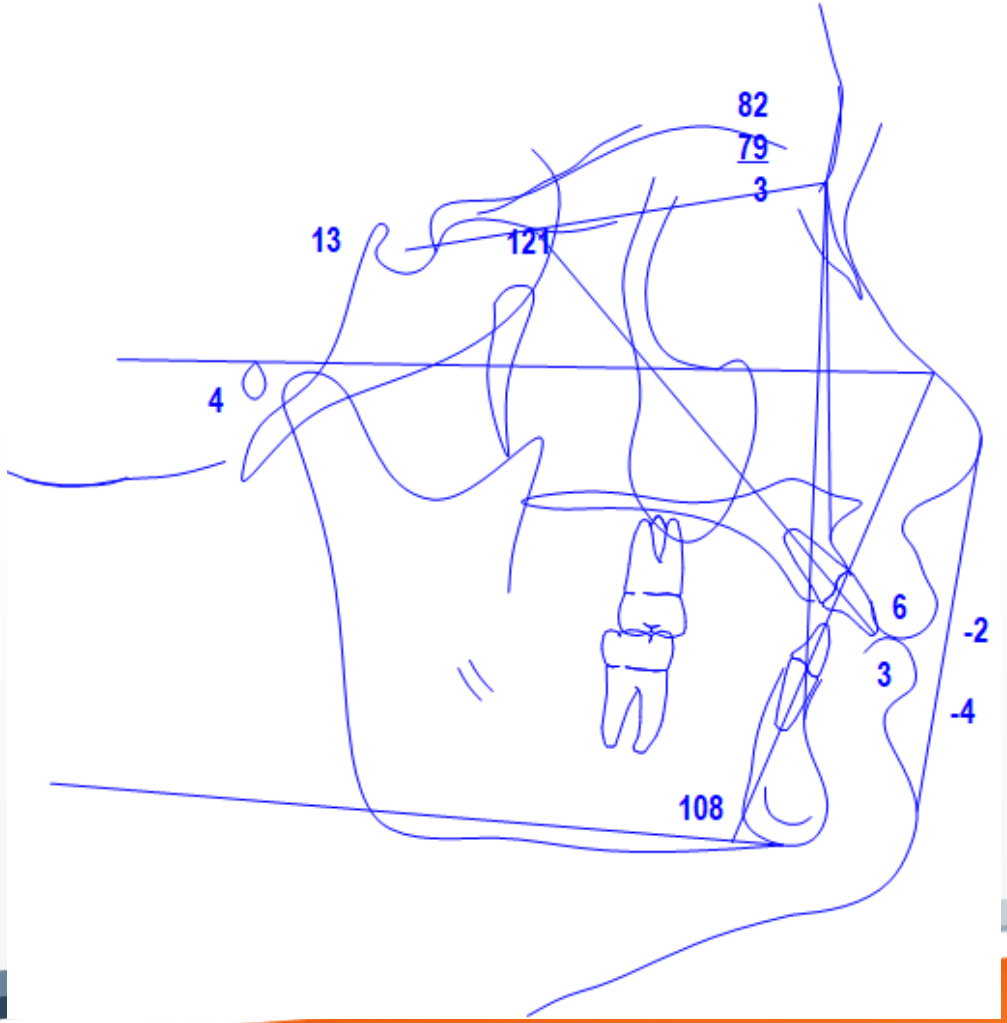
Assuming surgical correction, identify ideal treatment recommendations to prepare this patient for surgery. Please respond in numbered list format below.

Sample Case #11

Question 4

Sample Case #11
Question 4

Sample Case #11
Question 4



Sample Case #11
Question 4

Fully Proficient Model Response

The examinee's response must include five or more of the following:

1. Oral hygiene improvement
2. Band or bond mandibular second molars
3. Space closure
4. Retrocline or de-torque maxillary incisors
5. Arch coordination
6. Maintain curve of Spee prior to surgery

Sample Case #11
Question 4

Borderline Proficient Model Response

- The examinee must include four of the above.

Not Proficient Model Response

- The examinee includes three or fewer of the above.