Peer Questions for Section 6.2, Part 2 (pp. 321–327)

[Select persons (minimum of two per group) with whom you will work, and choose a "scribe for the day", a role you must rotate from day to day. Your scribe should submit your group’s responses to the following questions by 5 pm, Tues., Sept. 10, using the webform below.]

1. When you have an integrand which involves an expression such as

\[(a^2 - x^2)^m,\]

particularly when \( m \) is not an integer but \( 2m \) is an integer, you might consider a trig substitution

\[\text{trig } \theta = x.\]

Which trig substitutions make sense in this case?

2. When you have an integrand which involves an expression such as

\[(x^2 - a^2)^m\]

(again, particularly when \( m \) is not an integer but \( 2m \) is), which trig substitutions are worth considering here?

3. When you have an integrand which involves an expression such as

\[(x^2 + a^2)^m,\]

which trig substitutions are worth considering here?

4. Identify one item (a concept, a step in an example, a statement, etc.) from this reading assignment you found difficult or confusing.