

Chapter 7 Test Tips

1. Make yourself a chapter summary sheet. Write it out; you'll remember it much better:
 - a. Polygon area formulas: triangle, polygon, trapezoid, kite/rhombus, reg poly.
 - Rhombus: can also use poly formula...depends on what info given.
 - b. Special triangle relationships:
 - Pythagorean Theorem (and converse...triangle classification)
 - 30-60-90 ($x / x\sqrt{3} / 2x$)
 - 45-45-90 ($x / x / x\sqrt{2}$)
 - c. Circle formulas: circumf, area, arc measure/length, sector area, segment area.
2. Know the names of the most frequent regular polygons (page 144).
3. When looking at a figure to find area or a missing angle or side:
 - a. Determine what information you are given.
 - b. Determine formula to use and/or what information you need.
 - c. Do you have or can you construct a 30-60-90 or 45-45-90 triangle?
 - d. Can you directly use the Pythagorean Theorem?
 - e. If you don't have any angle info, likely have to use Pythagorean Theorem.
 - f. Remember you can treat a rhombus as a rhombus or a polygon.
 - If you have (or can get) diagonal info, treat as rhombus.
 - If you only side info, treat as poly.
 - g. Finding parts of a parallelogram may be a multi-step process.
 - Use known side and related height to find area.
 - Use area and known side/height to find missing height/side.
4. To find area of a regular polygon you need apothem and perimeter:
 - a. Determine poly's center angle measure ($360/n$).
 - b. Bisect center angle forming right triangle, height is apothem.
 - c. Determine if 30-60-90 or 45-45-90 or if need to use Pythag Thm.
 - d. Use special triangle info to determine apothem and length of $\frac{1}{2}$ of side.
 - e. Determine perimeter ($2 * \text{len } \frac{1}{2} \text{ side} * \# \text{ sides}$).
5. Read the question, answer the question:
 - a. Answer in simplest radical form or round to a specific decimal place?
 - b. Never leave a radical in the denominator of a fraction.
 - c. Simplest radical form...“reduce” the radical