**Pre-AP Geometry Right Triangles and Trigonometry Test Topics Fri-Mon, February 21-24**

**Vocabulary/truth:** Pythagorean Theorem, Converse of Pythagorean Theorem, hypotenuse, legs, angle of elevation/depression, Pythagorean shortcuts: 30-60-90 and 45-45-90, sine, cosine, tangent, d2 = a2 + b2+ c2

* Use Pythagorean Theorem to find a missing side of a right triangle from sketch or context.
* Use the converse to determine if a triangle is right, acute, or obtuse.
* Apply 30-60-90 or 45-45-90 shortcut to determine missing side of triangle, sometimes in radical form.
* Use one of the shortcuts to find coordinates of point on a circle centered at the origin.
* Use the distance formula to find lengths of segments, interpreting type of triangle.
* Give equation of a circle given center and radius, or center and radius given circle equation.
* Find area of triangles by adding an altitude, using either Pythagorean Theorem, a shortcut, or trig ratio.
* Know definitions of sine, cosine, and tangent in order to give ratios of sides in a triangle.
* Find a missing side or angle in a right triangle given enough information to write a trig ratio equation & solve for x (in numerator, denominator, or find angle w/ inverse). Draw and label a sketch if needed.
* Identify or apply angles of elevation or depression to solve trigonometric ratio problems in context.

Format: 6 multiple choice, 10 open response (show work)

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