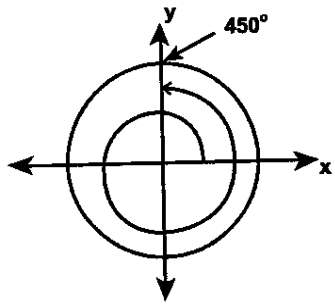
Name _____ Date _____

Angles Greater Than 360 Degrees

Without a calculator, evaluate the following trigonometric functions.
Hint: Rewrite each statement using an angle ≤ 360°.

Example: sin 450°



360 degrees represents one complete revolution about the unit circle.
So 450 degrees is one complete revolution plus 90 degrees more in the counter clockwise direction.

450 – 360 = 90
The problem reduces to sin 90 = 1.

Note: Refer to the unit circle diagram while you complete this assignment.

1. sin 630°
2. sin $^{-}$750°
3. cos $^{-}$480°
4. sin $^{-}$420°
5. sin 510°
6. cos 1020°
7. cos $^{-}$540°
8. cos $^{-}$675°
9. sin $^{-}$540°
10. cos $^{-}$930°
11. sin 405°
12. sin $^{-}$600°
13. sin 3600°
14. cos $^{-}$1830°

Each sine problem has the same value as one of the cosine problems. List the pairs.

1 & ____; 2 & ____; 4 & ____; 5 & ____; 9 & ____; 11 & ____; 12 & ____

In each pair, what is the relationship of the reference angles? _____

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