Name: _____

Trigonometry Functions of Any Angle

Exercise 1: Given $\sin 45^0 = \frac{\sqrt{2}}{2}$, find:

1) $\sin\left(-45^0\right)$

2) $\cos\left(180^0 - 45^0\right)$

3) $\sec\left(-45^0\right)$

4) $\tan\left(-45^0\right)$

5) $\cot\left(180^0 - 45^0\right)$

6) $\cot\left(-45^0\right)$

7) $\sin\left(180^0 + 45^0\right)$

8) $\sin\left(180^0 - 45^0\right)$

9) $\tan\left(180^0 + 45^0\right)$

10) $\sec\left(180^0 + 45^0\right)$

11) $\sin\left(360^0 - 45^0\right)$

12) $\sin\left(360^0 + 45^0\right)$

Exercise 2: Find the reference angle

1) A = 1620^0

2) A = 2620^0

3) A = 1662^0

4) A = 3020^0

5) A = 7632^0

6) A = 4376^0

7) A = 4537^0

8) A = 1020^0

Exercise 3: Determine the values of the six trigonometric functions of θ (in standard position) whose terminal side passes through the given point:

1) $P(-1,4)$
2) $P(3,6)$
3) $P(2,6)$
4) $P(-3,3)$
5) $P(5,1)$
6) $P(3,4)$
7) $P(6,8)$
8) $P(-5,12)$
9) $P(-4,3)$
10) $P(-8,-6)$

Exercise 4: Which angle is complementary to its reference angle?

Exercise 5: Which angles are equal to their reference angles?