Trig Practice WS 3

Name:

$\sin\theta = \frac{\text{opp}}{\text{hyp}} = \frac{y}{r}$	$\csc\theta = \frac{\text{hyp}}{\text{opp}} = \frac{r}{y}$
$\cos\theta = \frac{\text{adj}}{\text{hyp}} = \frac{x}{r}$	$\sec\theta = \frac{\text{hyp}}{\text{adj}} = \frac{r}{x}$
$\tan\theta = \frac{\text{opp}}{\text{adj}} = \frac{y}{x}$	$\cot\theta = \frac{\text{hyp}}{\text{opp}} = \frac{x}{y}$

1. If $x = 3$ and $y = 4$ find r and the following trig ratios:

$\sin\theta =$	$\csc\theta =$
$\cos\theta =$	$\sec\theta =$
$\tan\theta =$	$\cot\theta =$

2. If $x = -5$ and $y = 12$ find r and the following trig ratios:

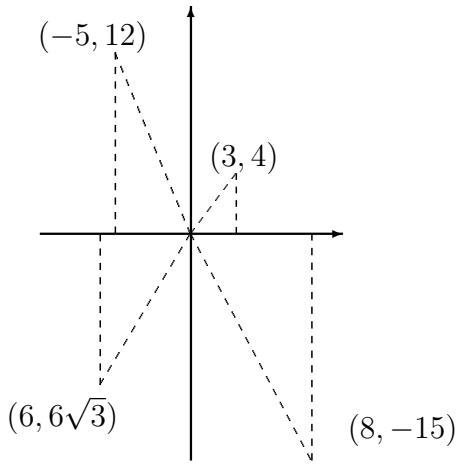
$\sin\theta =$	$\csc\theta =$
$\cos\theta =$	$\sec\theta =$
$\tan\theta =$	$\cot\theta =$

3. If $x = -6$ and $y = -6\sqrt{3}$ find r and the following trig ratios:

$\sin\theta =$	$\csc\theta =$
$\cos\theta =$	$\sec\theta =$
$\tan\theta =$	$\cot\theta =$

4. If $x = 8$ and $y = -15$ find r and the following trig ratios:

$\sin\theta =$	$\csc\theta =$
$\cos\theta =$	$\sec\theta =$
$\tan\theta =$	$\cot\theta =$



Find the trig ratios for each quadrant:

5. I

θ	sin	cos	tan	csc	sec	cot
0						
30						
45						
60						
90						

6. I

θ	sin	cos	tan	csc	sec	cot
0						
$\frac{\pi}{6}$						
$\frac{\pi}{4}$						
$\frac{\pi}{3}$						
$\frac{\pi}{2}$						

7. II

θ	sin	cos	tan	csc	sec	cot
90						
120						
135						
150						
180						

8. II

θ	sin	cos	tan	csc	sec	cot
$\frac{\pi}{2}$						
$\frac{2\pi}{3}$						
$\frac{3\pi}{4}$						
$\frac{5\pi}{6}$						
π						

9. III

θ	sin	cos	tan	csc	sec	cot
180						
210						
225						
240						
270						

10. III

θ	sin	cos	tan	csc	sec	cot
π						
$\frac{7\pi}{6}$						
$\frac{5\pi}{4}$						
$\frac{4\pi}{3}$						
$\frac{3\pi}{2}$						

11. IV

θ	sin	cos	tan	csc	sec	cot
270						
300						
315						
330						
360						

12. IV

θ	sin	cos	tan	csc	sec	cot
$\frac{3\pi}{2}$						
$\frac{5\pi}{3}$						
$\frac{7\pi}{4}$						
$\frac{11\pi}{6}$						
2π						