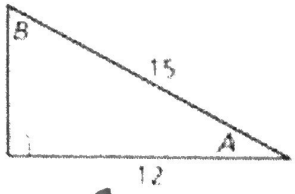
Sine/Cosine Relationships HW

Name: Key

Date: _____ Period: _____

Find the cosine and sine of the acute angles in the triangles shown.

1.



$\sin A = \frac{3}{5}$; $\sin B = \frac{4}{5}$

$\cos A = \frac{4}{5}$; $\cos B = \frac{3}{5}$

2.

$\sin A = \frac{15}{17}$; $\sin B = \frac{8}{17}$

$\cos A = \frac{8}{17}$; $\cos B = \frac{15}{17}$

Write each trigonometric function in terms of its cofunction.

3. $\sin 64^\circ$ $\cos 26^\circ$

4. $\cos 84^\circ$ $\sin 6^\circ$

5. $\cos 38^\circ$ $\sin 52^\circ$

6. $\sin 24^\circ$ $\cos 66^\circ$

7. $\cos 72^\circ$ $\sin 18^\circ$

8. $\sin 45^\circ$ $\cos 45^\circ$

Find two angles that satisfy each equation.

9. $\sin(4x + 30)^\circ = \cos(-2x + 54)^\circ$ 42° & 48°

10. $\sin(-2x + 92)^\circ = \cos(x + 8)^\circ$ 72° & 18°

11. $\cos(5x + 49)^\circ = \sin(3x + 57)^\circ$ 39° & 51°

12. $\cos(-3x + 106)^\circ = \sin(7x - 64)^\circ$ 70° & 20°

13. $\sin(2x + 30)^\circ = \cos(3x + 5)^\circ$ 52° & 38°

14. $\sin(5x - 12)^\circ = \cos(x + 54)^\circ$ 28° & 62°

15. $\cos(3x - 10)^\circ = \sin(3x - 20)^\circ$ 50° & 40°

16. $\cos(7x - 68)^\circ = \sin(-3x + 110)^\circ$ 16° & 74°