Plane Trigonometry Exam Three Review

1. Simplify $\cos^2(\theta)(1 + \tan^2(\theta))$.

2. Find the exact value of $\sin(75°)$ without using a calculator.

3. Find the exact value of $\cos(\frac{\pi}{8})$ without using a calculator.

4. Solve the equation $\tan^2(\theta) + \tan(\theta) - 2 = 0$, for all values of θ in $[0, 2\pi)$.

5. Solve the equation $2\sin(\theta) + 1 = 0$, for all values of θ in $[0, 360°)$.

6. Solve triangle ABC if $A = 32°$, $B = 81.8°$, and $a = 42.9$ cm.

7. Solve triangle ABC if $a = 10$, $b = 20$, and $c = 25$.