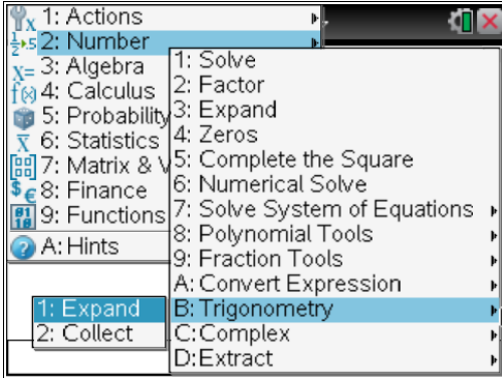
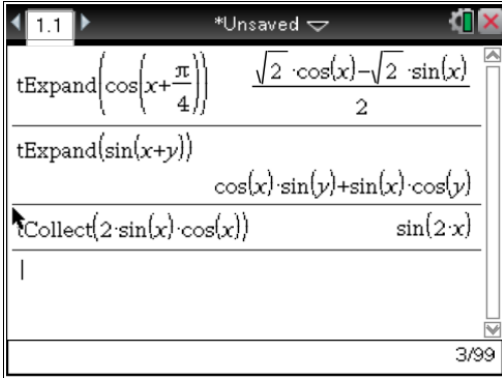
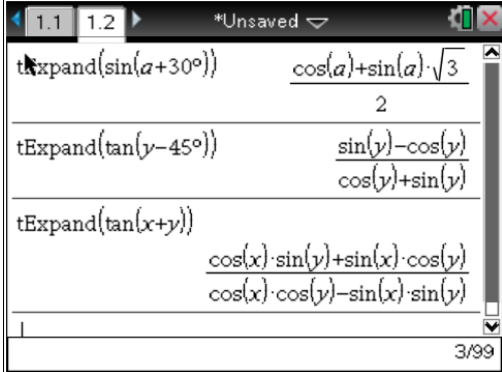
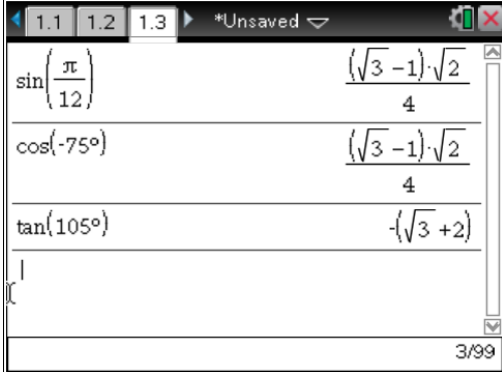


## COMPOUND ANGLE FORMULAE ON TI NSPIRE CAS

In a calculator screen, Menu Algebra Trigonometry: 1: Expand 2: Collect

 <p>The image shows the TI-Nspire CAS menu structure. The path is: Algebra &gt; Trigonometry &gt; 1: Expand &gt; 2: Collect. Other options in the Trigonometry menu include: 1: Solve, 2: Factor, 3: Expand, 4: Zeros, 5: Complete the Square, 6: Numerical Solve, 7: Solve System of Equations, 8: Polynomial Tools, 9: Fraction Tools, A: Convert Expression, B: Trigonometry, C: Complex, and D: Extract.</p>	 <p>The image shows the TI-Nspire CAS screen at 1.1. It displays the results of the 'Expand' command for three expressions:</p> <ul style="list-style-type: none"> <li><math>\text{tExpand}\left(\cos\left(x+\frac{\pi}{4}\right)\right) = \frac{\sqrt{2} \cdot \cos(x) - \sqrt{2} \cdot \sin(x)}{2}</math></li> <li><math>\text{tExpand}(\sin(x+y)) = \cos(x) \cdot \sin(y) + \sin(x) \cdot \cos(y)</math></li> <li><math>\text{Collect}(2 \cdot \sin(x) \cdot \cos(x)) = \sin(2 \cdot x)</math></li> </ul>
 <p>The image shows the TI-Nspire CAS screen at 1.2. It displays the results of the 'Expand' command for three expressions with angles:</p> <ul style="list-style-type: none"> <li><math>\text{tExpand}(\sin(a+30^\circ)) = \frac{\cos(a) + \sin(a) \cdot \sqrt{3}}{2}</math></li> <li><math>\text{tExpand}(\tan(y-45^\circ)) = \frac{\sin(y) - \cos(y)}{\cos(y) + \sin(y)}</math></li> <li><math>\text{tExpand}(\tan(x+y)) = \frac{\cos(x) \cdot \sin(y) + \sin(x) \cdot \cos(y)}{\cos(x) \cdot \cos(y) - \sin(x) \cdot \sin(y)}</math></li> </ul>	 <p>The image shows the TI-Nspire CAS screen at 1.3. It displays the results of the 'Expand' command for three specific trigonometric values:</p> <ul style="list-style-type: none"> <li><math>\sin\left(\frac{\pi}{12}\right) = \frac{(\sqrt{3}-1) \cdot \sqrt{2}}{4}</math></li> <li><math>\cos(-75^\circ) = \frac{(\sqrt{3}-1) \cdot \sqrt{2}}{4}</math></li> <li><math>\tan(105^\circ) = -(\sqrt{3}+2)</math></li> </ul>