These are elementary identities that should not need much memorization or looking up in order to use them when necessary. Only (1), (15), (16) should be "memorized." The rest should be understood, not memorized.

Notation: $s_X = \sin X, s = s_\alpha, s_2 = s_{2\alpha}, c_X = \cos X$, etc.

$$e^{i\alpha} = c_\alpha + i s_\alpha \tag{1}$$

$$s_\alpha = \frac{e^{i\alpha} - e^{-i\alpha}}{2i} \tag{2}$$

$$c_\alpha = \frac{e^{i\alpha} + e^{-i\alpha}}{2} \tag{3}$$

$$s_{0°} = 0 \tag{4}$$

$$s_{\pi/6} = s_{30°} = 1/2 \tag{5}$$

$$s_{\pi/4} = s_{45°} = \sqrt{2}/2 \tag{6}$$

$$s_{\pi/3} = s_{60°} = \sqrt{3}/2 \tag{7}$$

$$s_{\pi/2} = s_{90°} = 1 \tag{8}$$

$$c_{0°} = 1 \tag{9}$$

$$c_{\pi/6} = c_{30°} = \sqrt{3}/2 \tag{10}$$

$$c_{\pi/4} = c_{45°} = \sqrt{2}/2 \tag{11}$$

$$c_{\pi/3} = c_{60°} = 1/2 \tag{12}$$

$$c_{\pi/2} = c_{90°} = 0 \tag{13}$$

$$s^2 + c^2 = 1 \tag{14}$$

$$s_{\alpha \pm \beta} = s_\alpha c_\beta \pm c_\alpha s_\beta \tag{15}$$

$$c_{\alpha \pm \beta} = c_\alpha c_\beta \mp s_\alpha s_\beta \tag{16}$$

$$s^2 = \frac{1 - c_2}{2} \tag{17}$$

$$c^2 = \frac{1 + c_2}{2} \tag{18}$$

$$sc = \frac{s_2}{2} \tag{19}$$

$$s_\alpha c_\beta = \frac{s_{\alpha+\beta} + s_{\alpha-\beta}}{2} \tag{20}$$

$$c_\alpha s_\beta = \frac{s_{\alpha+\beta} - s_{\alpha-\beta}}{2} \tag{21}$$

$$c_\alpha c_\beta = \frac{c_{\alpha+\beta} + c_{\alpha-\beta}}{2} \tag{22}$$

$$s_\alpha s_\beta = \frac{-c_{\alpha+\beta} + c_{\alpha-\beta}}{2} \tag{23}$$