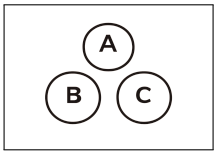
35 Formulas and Identities Sum and Difference A



$\alpha = 45°$

$\beta = 30°$

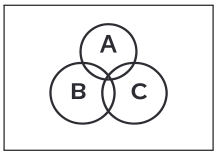
$\theta = 75°$

$\sin(45° + 30°) = \sin(45°)\cos(30°) + \cos(45°)\sin(30°)$

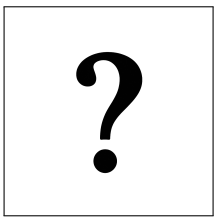
$\sin(75°) = (\sqrt{2}/2) \times (\sqrt{3}/2) + (\sqrt{2}/2) \times (1/2)$

$\sin(75°) = \sqrt{6}/4 + \sqrt{2}/4$

$\sin(75°) = (\sqrt{6} + \sqrt{2})/4$

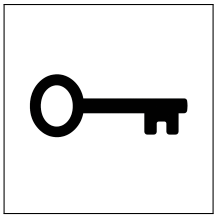


$\sin(\alpha \pm \beta) = \sin(\alpha)\cos(\beta) \pm \cos(\alpha)\sin(\beta)$



$\sin(105°) = ?$

35 Formulas and Identities Sum and Difference A



$\alpha = 60°$

$\beta = 45°$

$\theta = 105°$

$\sin(\alpha \pm \beta) = \sin(\alpha)\cos(\beta) \pm \cos(\alpha)\sin(\beta)$

$\sin(105°) = \sin(60° + 45°)$

$\sin(105°) = \sin(60°)\cos(45°) + \cos(60°)\sin(45°)$

$\sin(105°) = (\sqrt{3}/2) \times (\sqrt{2}/2) + (1/2) \times (\sqrt{2}/2)$

$\sin(105°) = \sqrt{6}/4 + \sqrt{2}/4$

$\sin(105°) = (\sqrt{6} + \sqrt{2})/4$