**7A Additional Formulae Identities**



1. Use $cos\left(α+β\right)=cosαcosβ-sinαsinβ$ to show that:

$$cos\left(A-B\right)=cosAcosB+sinAsinB$$

1. Use $sin\left(α+β\right)=sinαcosβ+cosαsinβ$ and $cos\left(α+β\right)=cosαcosβ-sinαsinβ$

To show that

$$tan\left(A+B\right)=\frac{tanA+tanB}{1-tanAtanB}$$

1. Prove that

$$\frac{cosA}{sinB}-\frac{sinA}{cosB}≡\frac{cos\left(A+B\right)}{sinBcosB}$$

1. Given that:

$2\sin(\left(x+y\right))=3cos⁡(x-y)$

Express $tanx$ in terms of $tany$