

Fill in the Blanks

Rationalising the Denominator

Question	Working		Answer
$\frac{5}{\sqrt{3}}$	$\times \frac{\sqrt{3}}{\sqrt{3}}$	$= \frac{5\sqrt{3}}{\sqrt{9}}$	$= \frac{5\sqrt{3}}{3}$
$\frac{\sqrt{3}}{\sqrt{7}}$	$\times \frac{\sqrt{7}}{\sqrt{7}}$		
$\frac{5\sqrt{5}}{\sqrt{6}}$			
$\frac{2 + \sqrt{3}}{\sqrt{5}}$	$\times \frac{\sqrt{5}}{\sqrt{5}}$	$= \frac{\sqrt{5}(2 + \sqrt{3})}{\sqrt{25}}$	$= \frac{2\sqrt{5} + \sqrt{15}}{5}$
$\frac{3 - \sqrt{5}}{\sqrt{2}}$			
$\frac{1 + \sqrt{2}}{2\sqrt{3}}$			
$\frac{\sqrt{2} - 3\sqrt{5}}{5\sqrt{2}}$			

Question	Working		Answer
$\frac{3}{2 + \sqrt{2}}$	$\times \frac{2 - \sqrt{2}}{2 - \sqrt{2}}$	$= \frac{3(2 - \sqrt{2})}{4 - \sqrt{4}}$	$= \frac{6 - 3\sqrt{2}}{2}$
$\frac{8}{4 - \sqrt{3}}$			
$\frac{\sqrt{5}}{6 + \sqrt{5}}$			
$\frac{3\sqrt{5}}{3 - \sqrt{7}}$			
$\frac{7 + \sqrt{2}}{3 - \sqrt{2}}$	$\times \frac{3 + \sqrt{2}}{3 + \sqrt{2}}$	$= \frac{(7 + \sqrt{2})(3 + \sqrt{2})}{9 - \sqrt{4}}$	$= \frac{23 + 10\sqrt{2}}{7}$
$\frac{1 - \sqrt{8}}{5 + \sqrt{2}}$			
$\frac{a + \sqrt{b}}{a\sqrt{b}}$			