

1E Surds Introduction

1. Simplify

a) $\sqrt{18}$

b) $\frac{\sqrt{20}}{2}$

c) $5\sqrt{6} - 2\sqrt{24} + \sqrt{294}$

2. Expand and simplify if possible

a) $\sqrt{2}(5 - \sqrt{3})$

b) $(2 - \sqrt{3})(5 + \sqrt{3})$

1F Rationalising Surds

3. Rationalise

a) $\frac{1}{\sqrt{3}}$

b) $\frac{1}{3+\sqrt{2}}$

c) $\frac{\sqrt{5}+\sqrt{2}}{\sqrt{5}-\sqrt{2}}$

d) $\frac{1}{(1-\sqrt{3})^2}$