

Rationalising the Denominator *fluency*



Rationalise the denominator. Simplify where possible.

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

2 $\frac{2}{\sqrt{5}}$

3 $\frac{5}{\sqrt{7}}$

4 $\frac{3}{\sqrt{2}}$

5 $\frac{4}{\sqrt{11}}$

6 $\frac{1}{\sqrt{10}}$



Rationalise the denominator

7 $\frac{6}{\sqrt{2}}$

8 $\frac{10}{\sqrt{5}}$

9 $\frac{12}{\sqrt{3}}$

10 $\frac{15}{\sqrt{6}}$

11 $\frac{14}{\sqrt{7}}$

12 $\frac{9}{\sqrt{12}}$



Rationalise the denominator

13 $\frac{\sqrt{2}}{\sqrt{3}}$

14 $2\sqrt{\frac{3}{3}}$

15 $3\sqrt{\frac{5}{5}}$

16 $\frac{2 + \sqrt{3}}{\sqrt{3}}$

17 $\frac{\sqrt{5} - 1}{\sqrt{5}}$

18 $\frac{\sqrt{10}}{2\sqrt{5}}$



Rationalise the denominator

19 $\frac{1}{\sqrt{2} + 1}$

20 $3 - \frac{1}{\sqrt{2}}$

21 $\frac{2}{\sqrt{5} - 1}$

22 $3 + \frac{4}{\sqrt{5}}$

23 $\frac{6}{\sqrt{7} - 2}$

24 $2 + \frac{1}{\sqrt{3}}$



Rationalise the denominator

25 $\frac{1 + \sqrt{2}}{\sqrt{2} - 1}$

26 $\frac{3 - \sqrt{5}}{3 + \sqrt{5}}$

27 $\frac{\sqrt{3}}{\sqrt{3} + 1}$

28 $\frac{2 + \sqrt{3}}{2 - \sqrt{3}}$

29 $\frac{5}{\sqrt{7} + \sqrt{2}}$

30 $\frac{\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}}$