Surds

1. Express $\sqrt{50}$ as a surd in its simplest form. 1 KU

2. Simplify $\dfrac{\sqrt{72}}{\sqrt{3}}$ 2 KU

3. Simplify $\sqrt{48}-3\sqrt{3}$ 2 KU

4. Express $\sqrt{32}-\sqrt{2}$ as a surd in its simplest form. 2 KU

5. Express $\sqrt{72}-\sqrt{2}+\sqrt{50}$ as a surd in its simplest form 3 KU

6. Express $\sqrt{32}+\sqrt{8}$ as a surd in its simplest form. 3 KU

7. Multiply out the brackets $\sqrt{2}\left(\sqrt{6}-\sqrt{2}\right)$

   Express your answer as a **surd** in its simplest form. 2 KU

8. $f(x)=3\sqrt{x}$

   Find the exact value of $f(12)$, giving your answer as a **surd, in its simplest form**. 2 KU

9. Express $\dfrac{3}{\sqrt{5}}$ as a fraction with a rational denominator. 2 KU

10. Simplify $\dfrac{\sqrt{3}}{\sqrt{24}}$ Express your answer as a fraction with a rational denominator 3 KU

11. $f(x)=\dfrac{3}{\sqrt{x}}$ Find the **exact** value of $f(2)$

    Give your answer **as a fraction** with a rational denominator. 2 KU

12. A function f is given by $f(x)=4^x$

    Find the value of $f\left(\frac{3}{2}\right)$ 2 KU