**Inverse Functions GREEN**



1. Given that $f(x)=2x+3$,

 a) Sketch the graph of $f^{-1}(x)$

 b) Determine the equation of $f^{-1}(x)$.



2. Given that $f(x)=\frac{x}{2}$,

 a) Sketch the graph of $f^{-1}(x)$

 b) Determine the equation of $f^{-1}(x)$.

3. Given that $f(x)=4-x$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



4. Given that $f(x)=x²+2$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



5. Given that $f(x)=x³$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



6. Given that $f(x)=x²-6$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



7. Given that $f(x)=\sqrt{x-3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



8. Given that $f\left(x\right)=2x+\frac{5}{3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

**Inverse Functions AMBER**



1. Given that $f(x)=2x+3$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and rearrange to make $x$ the subject.

 $y=2x+3$



2. Given that $f(x)=\frac{x}{2}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and rearrange to make $x$ the subject.

3. Given that $f(x)=4-x$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and rearrange to make $x$ the subject.



4. Given that $f(x)=x²+2$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

5. Given that $f(x)=x³$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



6. Given that $f(x)=x²-6$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



7. Given that $f(x)=\sqrt{x-3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



8. Given that $f\left(x\right)=2x+\frac{5}{3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

**Inverse Functions RED**



1. Given that $f(x)=2x+3$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and **rearrange** to make $x$ the subject.

 $y=2x+3$

 $y–3=2x$

 $=x$

 Therefore $f^{-1}\left(x\right)=$

Reflect the graph in $y=x$



2. Given that $f(x)=\frac{x}{2}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and **rearrange** to make $x$ the subject.

 $y=\frac{x}{2}$

3. Given that $f(x)=4-x$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.

Hint: Let $f(x)=y$ and **rearrange** to make $x$ the subject.



4. Given that $f(x)=x²+2$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



5. Given that $f(x)=x³$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



6. Given that $f(x)=x²-6$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



7. Given that $f(x)=\sqrt{x-3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.



8. Given that $f\left(x\right)=2x+\frac{5}{3}$,

 a) Sketch the graph of $f^{-1}(x)$.

 b) Determine the equation of $f^{-1}(x)$.