**Finding Expressions for Transformed Functions**

(a) Given that $f\left(x\right)=x+5$, find an expression for $f(4x)$

(b) Given that $g\left(x\right)=\sqrt{x}$, find an expression for $g(x-3)$

(c) Given that $h\left(x\right)=\frac{x}{2}$, find an expression for $h(x^{2})$

(a) Given that $f\left(x\right)=3x+7$, find an expression for $f(x+1)$

(b) Given that $g\left(x\right)=x^{2}-4$, find an expression for $g(2x)$

(c) Given that $h\left(x\right)=\frac{1}{3x}$, find an expression for $h(x-4)$

(a) Given that $f\left(x\right)=x^{2}+2x-1$, find an expression for $f(3x)$

(b) Given that $g\left(x\right)=\frac{x}{x+1}$, find an expression for $g(x+5)$

(c) Given that $h\left(x\right)=\frac{x}{2}-3$, find an expression for $h(11+4x)$, giving your answer in the form $ax+b$, where $a$ and $b$ are constants.

(a) Given that $f\left(x\right)=5-4x$, solve $f\left(x+1\right)=3$

(b) Given that $g\left(x\right)=x-10$, solve $g\left(x^{2}\right)=3x$

(c) Given that $h\left(x\right)=x^{2}$, solve $h\left(2x+1\right)-h\left(x-3\right)=15x$

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