# generalizing patterns

February 14, 2017

**Question 1.** *Construct a function $f$ with $f(1) = 3$, $f(2) = 4$ and $f(3) = 5$.*

**Question 2.** *Construct a function $f$ with $f(1) = 3$, $f(2) = 4$ and $f(3) = 7$.*

**Question 3.** *Construct a function $f$ with $f(1) = 3$, $f(2) = 4$ and $f(14) = 7$.*

**Question 4.** *Construct a function $f$ with $f(11) = 5$, $f(8) = 10$ and $f(4) = 4$.*

**Question 5.** *Construct ten different function $f$ with $f(1) = 1$, $f(2) = 2$ and $f(4) = 4$.*

**Question 6.** *Suppose $f$ is a function with $f(1) = 3$ and $g$ is a function with $g(4) = 7$. Make a function $h$ by combining $f$ and $g$ in some fashion (add, subtract, multiply, etc.) so that $h(1) = 3$ and $h(4) = 7$.*