

## Direct Proportion

Question	General Equation	Find $k$	New Equation	Find Value using Equation
$A$ is directly proportional to $B^2$ , when $A = 45$ , $B = 3$ . Find $A$ when $B = 7$	$A = k \times B^2$	$45 = k \times 3^2$ so $k = 5$	$A = 5B^2$	$A = 5 \times 7^2$ $A = 245$
(a) $y$ is directly proportional to $x^2$ , and $y = 270$ when $x = 3$ . Find $y$ when $x = 5$				
(b) $N$ is directly proportional to $L^3$ , when $N = 1280$ , $L = 4$ . Find $N$ when $L = 3$				
(c) $A$ is directly proportional to $\sqrt{B}$ and when $A = 90$ , $B = 9$ . Find $A$ when $B = 25$				
(d) $A$ is directly proportional to $B^2$ and when $A = 8$ , $B = 4$ . Find $A$ when $B = 0.5$	(e) $h$ is directly proportional to $\sqrt{w}$ and $h = 15$ when $w = 4$ . Find $h$ when $w = 64$	(f) $A$ is directly proportional to $V^3$ and when $A = 400$ , $V = 2$ . Find $V$ when $A = 6250$	(g) $y$ is directly proportional to $\sqrt[3]{x}$ . When $x = 8$ , $y = 64$ . Find $x$ when $y = 128$	