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| 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 $B=7$ | $$A=k×B^{2}$$ | $45=k×3^{2}$ so $k=5$ | $$A=5B^{2}$$ | $$A=5×7^{2}=245$$ |
| (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$y=128$ |