## VARIATIONS

Exercise 5.2
a) Given that $p$ varies directly as the cube of $q$, find the law when $\mathrm{p}=2$ and $q=4$. Hence, find the value of $p$ when $q=6$.
e) Give two real life examples 10 show direct proportionality. i)
ii)
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c) Given that $a$ varies directly as the square root of $b$, find the law connecting them when $a=27$ and $b=9$. Hence, find the value of $a$ when $\mathrm{b}=4$.
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d) Given that $y$ varies directly as the cube root of $x$, find the law connecting them when $y=8$ and $x=32$. Hence, find the value of $y$ when $x=75$.
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e) Given that $x$ and $y$ satisfy the relationship $y=k x^{2}$, find the value $0 f k$ and point out the incorrect value(s) of $y$ in the table.

| y | 1 | 2 | 3 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| x | 3 | 12 | 21 | 75 | 180 |

