

CHAPTER 5 – VARIATIONS

- y varies directly as cubes of x and $y = 32$ when $x = 2$. Find y when $x = 3$.
- y varies directly as square of x and $y = 63$ when $x = 3$. Find y when $x = 2$.
- y varies directly as square root of x and $y = 27$ when $x = 9$. Find y when $x = 25$.
- The table shows some values for variables p and q according to the relation $p \propto q^2$.

p	80	s
q	4	2

- Express p in terms of q
- Find s.

- The table shows some values for variables p and q according to the relation $p \propto \sqrt[3]{q}$.

p	36	s
q	64	27

- Express p in terms of q
- Find s.

- y varies inversely as x and $y = 4$ when $x = 5$. Find y when $x = 2$.
- y varies inversely as square of x and $y = 3$ when $x = 4$. Find y when $x = 12$.
- y varies inversely as square root of x and $y = 9$ when $x = 64$. Find y when $x = 18$.

- The table shows some values for variables p and q according to the relation $p \propto \frac{1}{q^3}$.

p	9	s
q	2	3

- Express p in terms of q
- Find s.

- The table shows some values for variables p and q according to the relation $p \propto \frac{1}{\sqrt[3]{q}}$.

p	25	s
q	27	5

- Express p in terms of q
- Find s.

- Given that $p \propto \frac{x}{y}$ and $p = 9$ when $x = 126$ and $y = 70$. Find the value of p when $x = 124$, $y = 10$.

- Given that $p \propto \frac{x^2}{y}$ and $p = 9$ when $x = 9$ and $y = 27$. Find the value of p when $x = 8$, $y = 24$.

- Given that $p \propto xy$.

p	84	w
x	3	2
y	4	5

- Express p in terms of x and y.
- Find w.

- Given that $p \propto \frac{x}{\sqrt{y}}$.

p	34	w
x	17	8
y	9	16

- Express p in terms of x and y.
- Find w.

- Given that $p \propto \frac{x}{y^2}$.

p	16	w
x	18	11
y	3	2

- Express p in terms of x and y.
- Find w.