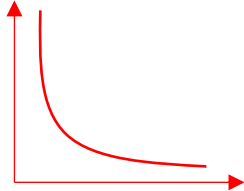


Direct and Inverse Proportion Revision

(a)	(b)	(c)	(d)												
<p>y is directly proportional to x. When $x = 8, y = 40$. Find a formula for y in terms of x.</p> <p style="text-align: center; color: red;">$y = 5x$</p>	<p>F is inversely proportional to t. When $F = 2.5, t = 4$. Find a formula for F in terms of t.</p> <p style="text-align: center; color: red;">$F = \frac{10}{t}$</p>	<p>p is directly proportional to the square of q. When $q = 3, p = 90$. Find a formula linking p and q.</p> <p style="text-align: center; color: red;">$p = 10q^2$</p>	<p>y is directly proportional to x^3. When $x = 5, y = 2500$. Find a formula for y in terms of x.</p> <p style="text-align: center; color: red;">$y = 20x^3$</p>												
(e)	(f)	(g)	(h)												
<p>Sketch the graph showing y is inversely proportional to x.</p> 	<p>y is directly proportional to \sqrt{x}. When $x = 4, y = 0.5$. Find the value of y when $x = 64$.</p> <p style="text-align: center; color: red;">$y = 0.25\sqrt{x}$ $y = 2$</p>	<p>d is inversely proportional to w^2. When $w = 0.5, d = 12$. Find a formula for d in terms of w.</p> <p style="text-align: center; color: red;">$d = \frac{3}{w^2}$</p>	<p>T is inversely proportional to \sqrt{L}. When $L = 16, T = 25$. Find the value of L when $T = 10$.</p> <p style="text-align: center; color: red;">$T = \frac{k}{\sqrt{L}}$ $L = 100$</p>												
(i)	(j)														
<p>The distance d travelled by a ball is proportional to the square of the time taken, t. After 4 seconds the ball has travelled 40 m.</p> <p>(i) Find a formula linking d and t. (ii) Find the distance travelled after 7 seconds.</p> <p style="text-align: center; color: red;">$d = 2.5t^2$ $d = 122.5 \text{ m}$</p>	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tbody> <tr> <td style="padding: 5px;">x</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">5</td> <td style="padding: 5px;">10</td> <td style="padding: 5px;">20</td> </tr> <tr> <td style="padding: 5px;">y</td> <td style="padding: 5px;">100</td> <td style="padding: 5px;">25</td> <td style="padding: 5px;">4</td> <td style="padding: 5px; color: red;">1</td> <td style="padding: 5px; color: red;">0.25</td> </tr> </tbody> </table> <p>(i) Find a formula for y in terms of x. (ii) Complete the table.</p> <p style="text-align: center; color: red;">$y = \frac{100}{x^2}$</p>			x	1	2	5	10	20	y	100	25	4	1	0.25
x	1	2	5	10	20										
y	100	25	4	1	0.25										