
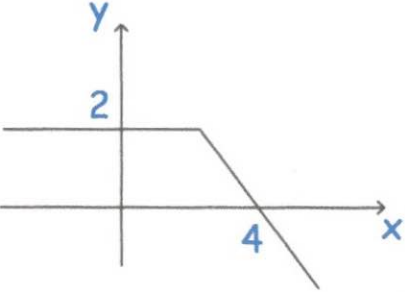
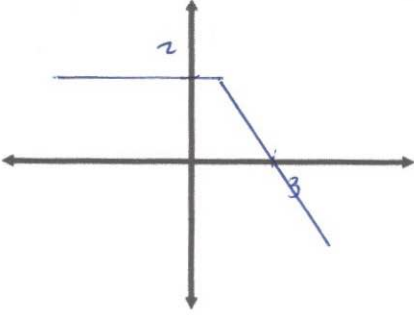
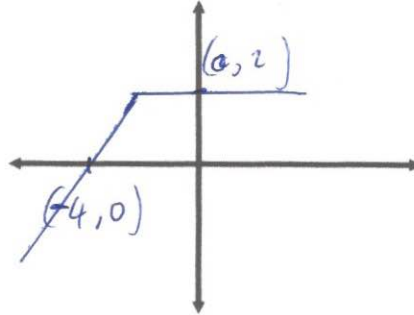
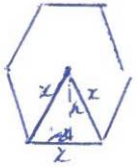


<p>17th January</p> <p>Simplify fully</p> $\frac{4x^2 - 25}{6x^2 - 11x - 10}$	 <p>Corbettmaths</p> $\frac{(2x+5)(2x-5)}{(3x+2)(2x-5)}$ $\frac{2x+5}{3x+2}$
<p>Shown is the graph of the function $y = f(x)$</p> <p>Sketch</p> <p>(a) $f(x + 1)$</p> <p>(b) $f(-x)$</p>	
	
<p>A formula for the area of a regular hexagon with side length x is given. Prove this formula.</p>  $h^2 = x^2 - \left(\frac{1}{2}x\right)^2$ $h^2 = x^2 - \frac{1}{4}x^2$ $h^2 = \frac{3}{4}x^2$	$\text{Area} = \frac{3}{2}\sqrt{3}x^2$ $h = \frac{\sqrt{3}}{2}x \quad \text{Area of } \Delta = \frac{1}{2}bh$ $= \frac{1}{2}x\left(\frac{\sqrt{3}}{2}x\right)$ $= \frac{\sqrt{3}}{4}x^2$ $\frac{\sqrt{3}}{4}x^2 \times 6 = \frac{3}{2}\sqrt{3}x^2 \quad \text{QED}$
<p>The straight line l_1 has equation $3x + y - 1 = 0$ $y = -3x + 1$</p> <p>The straight line l_2 is perpendicular to line l_1 and passes through the point $(8, 2)$</p> <p>Find the equation of l_2 in the form $y = mx + c$</p>	$m = \frac{1}{3}$ $y = \frac{1}{3}x + c$ $2 = \frac{8}{3} + c$ $-\frac{2}{3} = c$ $y = \frac{1}{3}x - \frac{2}{3}$