	Straight Lines	
1	Find the equation of the straight line between the points $(-2,2)$ and $(2,10)$. Give your answer in the simplest form	3
2	Find the equation of the straight line between the points $(0,8)$ and $(4,0)$. Give your answer in the simplest form	3
3	Find the equation of the straight line between the points $(1,5)$ and $(-2,8)$. Give your answer in the simplest form	3
4	Find the equation of the straight line between the points $(-2,9)$ and $(4,3)$. Give your answer in the simplest form	3
5	A straight line passes through the points $(5,110)$ and $(25,30)$. (a) Find the equation of this straight line in the simplest form. (b) Use your answer to find the y-coordinate when $x = 30$	3 1
	16 marks	

	Straight Lines - Answers	
1	Mark 1 find the gradient $m = \frac{10-2}{2+2} = \frac{8}{4}$ Mark 2 Substitute the gradient and one of the points into the equation of a straight line $y = mx + c$ so $10 = 2 \times 2 + c$ or $y - b = m(x - a)$ so $y - 10 = 2(x - 2)$ Mark 3 State the equation of the straight line in the simplest form $\boldsymbol{y = 2x + 6}$	3
2	Mark 1 find the gradient $m = \frac{8-0}{0-4} = \frac{8}{-4} = -2$ Mark 2 Substitute the gradient and one of the points into the equation of a straight line $y = mx + c$ so $8 = -2 \times 0 + c$ or $y - b = m(x - a)$ so $y - 8 = -2(x - 0)$ Mark 3 State the equation of the straight line in the simplest form $\boldsymbol{y = 8 - 2x}$	3
3	Mark 1 find the gradient $m = \frac{8-5}{-2-1} = \frac{3}{-3} = -1$ Mark 2 Substitute the gradient and one of the points into the equation of a straight line $y = mx + c$ so $5 = 1 \times -1 + c$ or $y - b = m(x - a)$ so $y - 5 = -1(x - 1)$ Mark 3 State the equation of the straight line in the simplest form $\boldsymbol{y = 6 - x}$	3
4	Mark 1 find the gradient $m = \frac{9-3}{-2-4} = \frac{6}{-6} = -1$ Mark 2 Substitute the gradient and one of the points into the equation of a straight line $y = mx + c$ so $3 = 4 \times -1 + c$ or $y - b = m(x - a)$ so $y - 3 = -(x - 4)$ Mark 3 State the equation of the straight line in the simplest form $\boldsymbol{y = 7 - x}$	3
5	Mark 1 Find the gradient $m = \frac{110-30}{5-25} = \frac{80}{-20} = -4$ Mark 2 Substitute the gradient and one of the points into the equation of a straight line $y = mx + c$ so $30 = -4 \times 25 + c$ or $y - b = m(x - a)$ so $y - 30 = -4(x - 25)$ Mark 3 State the equation of the straight line in the simplest form $\boldsymbol{y = 130 - 4x}$ Mark 4 Substitute $x = 30$ into your straight line $y = 130 - 4 \times 30$, $\boldsymbol{y = 10}$	3
	16 marks	