

Rearranging Formulae Mark Scheme:		
1(a)	$x = \frac{8}{3}$	[1]
1(b)	$x = \frac{2}{5}y$	[1]
1(c)	$x = \frac{5}{2y}$	[1]
1(d)	$x = 5$	[1]
2(a)	$b = n + 2x$	[1]
2(b)	$x = \frac{t^2 - 1}{3}$	[1]
2(c)	$q = 6 - (3p + 4)$ $\therefore q = 2 - 3p$	[1] Add q to both sides
2(d)	$x - 2 = (3a)^2$	[1] Squaring
	$\therefore x = 2 + 9a^2$	[1] Correct answer
3(a)	$2S = T - 8$	[1] -3, then divide by 2
	$\therefore S = \frac{T - 8}{2}$	[1] Correct answer
3(b)	$3 + x = y(2x + 1)$	[1] Multiply by y , then divide by $2x + 1$
	$y = \frac{3 + x}{2x + 1}$	[1] Correct answer

Turn over ►

4(a)	$m = \frac{2+x}{x+3}$	[1]
4(b)	$p(2x+3) = 1+2x$	[1] Factorise then divide by $2x+3$
	$p = \frac{1+2x}{2x+3}$	[1] Correct answer
4(c)	$2mx - 3x = m - 10$	[1] Subject on same side
	$x(2m - 3) = m - 10$	[1] Factorise and divide
	$x = \frac{m-10}{2m-3}$	[1] Correct answer
5	$\begin{aligned} n(m+3) &= m-4 \\ mn+3n &= m-4 \end{aligned}$	[1] Multiplying up
	$mn - m = -4 - 3n$	[1] Rearranging for m
	$m(n-1) = -4 - 3n$	[1] Factorise and divide
	$m = \frac{-4-3n}{n-1}$	[1] Accept $m = \frac{-(3n+4)}{n-1}$ and $m = -\frac{3n+4}{1-n}$
6	$(y+1)(x+1) = 2x-10$	[1] Multiplying up
	$xy+x+y+1 = 2x-10$	[1] Expanding and simplifying
	$y+11 = x-xy$	[1] Subject on same side
	$y+11 = x(1-y)$	
	$x = \frac{y+11}{(1-y)}$	[1] Factorise and divide
7	$h = 2r$	[1] Height is twice the radius
	$\begin{aligned} V &= \frac{1}{3}\pi r^2(2r) \\ V &= \frac{2}{3}\pi r^3 \\ r^3 &= \frac{3V}{2\pi} \end{aligned}$	[1] Equation linking r and V
	$\therefore r = \sqrt[3]{\frac{3V}{2\pi}}$	[1] Rearranging for r

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