Algebra: Quadratics, Rearranging Formulae and Identities
Non-Calculator 20 minute test 1

Q	Answer	Mark	Comments
1	$5x^{-1}y^2$	B2	All three terms correct oe e.g. $\dfrac{5y^2}{x}$ B1 $5x^n y^2$ or $5x^{-1}y^n$

Q	Answer	Mark	Comments
2(a)	$+1$	B1	Or uses words
	Square	B1	Or uses $\quad^2$ notation
2(b)	Square root followed by -1	B1	Boxes cannot be interchanged

Q	Answer	Mark	Comments
3	$x^2 + 10x + 2x - 16$	M1	Expands one bracket correctly. Sight of $x^2 + 10x$ or $2x - 16$
	$x^2 + 12x - 16$	A1	Simplifies correctly.

Q	Answer	Mark	Comments
4(a)	$(x \pm 4)(x \pm 3)$	M1	Factorises using the correct numbers, ignore signs.
	$(x + 4)(x - 3)$	A1	

Q	Answer	Mark	Comments
5	$\sqrt{8}\sqrt{8} - 4\sqrt{8} + 4\sqrt{8} - 16$ or $\left(\sqrt{8}\right)^2 - 4\sqrt{8} + 4\sqrt{8} - 16$ or $8 - 4\sqrt{8} + 4\sqrt{8} - 16$	M1	Attempt to expand the brackets with at least four terms.
	-8	A1	

Q	Answer	Mark	Comments
6	$10^2 - 1$	M1	Attempt to substitute $x = 10$
	99	A1	

Q	Answer	Mark	Comments
7	$P + 2x = 5x - 10$	M1	Expands brackets *correctly* e.g. $P + 2x = 5x - 2$ is M0
	$P + 10 = 3x$	M1	Correctly rearranges after expansion e.g. $P + 2 = 5x - 2x$ is M1
	$x = \dfrac{P + 10}{3}$	A1ft	ft if M0M1 or M1M0 awarded.

Q	Answer	Mark	Comments
9	$(x + 5)(x - 5)$	B1	