

Algebra: Quadratics, Rearranging Formulae and Identities

Calculator 10 minute test 4

Q	Answer	Mark	Comments
1	Chooses both of (b) $\frac{a^{15}}{a^3}$ and (d) $(a^4)^3$ and no incorrect statements.	B2	B1 Chooses one of (b) $\frac{a^{15}}{a^3}$ or (d) $(a^4)^3$ OR Chooses both of (b) $\frac{a^{15}}{a^3}$ and (d) $(a^4)^3$ and one incorrect statement.
2	$(x + 10)(x - 10)$	B1	
3	$x^2 - 13x + 17x - 221$	M1	Expands brackets to give four terms. Allow one error. Ignore signs.
	$x^2 + 4x - 221$	A1	
4	$(a + b)(a + b) - 2ab$	M1	
	$a^2 + ab + ab + b^2 - 2ab$ Simplifying to $a^2 + b^2$ (<i>given</i>)	A1	All terms present.
5	$\sqrt{5^2 - 2 \times 0.5 \times (-3)}$	M1	Substitutes the values into the formula
	$\sqrt{28} = 5.29150 \dots$	A1	Allow 5.29150...for A1
	5.29	B1ft	ft their value rounded correctly to 3sf