Question		Working	Answer	Mark	Notes	
15		*ABD* = 98° ÷ 2 (= 49°) or *ABC* = 90°		4	M1	Correct angle stated or seen on diagram
		Angle at centre / middle is twice angle at circumference			B1	Dep M1
		Angle in a semicircle / from a diameter is 90° / right angle			B1	Dep M1
		DBC = (90 – 49) = 41	41°		A1	Correct answer + no reasons = M1A1
		Alt:				
		180 – 98 (= 82°)				
		OAD = 82 ÷ 2 (= 41°)			M1	Correct angle stated or seen on diagram
		Base / bottom angles in an isosceles triangle are equal			B1	Dep M1
		DBC = 41°				
		Angles in the same segment / from the same chord (*DC*) are equal			B1	Dep M1
			41°		A1	Correct answer + no reasons = M1A1
		Alt:				
		DOC = 180 – 98 (= 82°)			M1	Correct angle stated or seen on diagram
		Angles on a straight line = 180°			B1	Dep M1
		DBC = 41°				
		Angle at centre / middle is twice angle at circumference			B1	Dep M1
			41°		A1	Correct answer + no reasons = M1A1
						Total 4 marks

16	(a)	$y = \frac{k}{x^2}$ condone proportion symbol in place of =		3	M1	Setting up a correct equation "*k*" ≠ 1
		$16 = \frac{k}{1.5^2}$ or $9 = \frac{k}{2^2}$ or $4 = \frac{k}{3^2}$ or $2.25 = \frac{k}{4^2}$			M1	Using the values from the table to find the value of the constant or "*k*" = 36
			$y = \frac{36}{x^2}$		A1	$\frac{36}{x^2}$ = M2 A0
	(b)	$x^2 = \frac{36}{144}$ or $x = \sqrt{(\frac{36}{144})}$			M1	Substituting *y* = 144 into the correct equation and making x^2 or *x* the subject.
			0.5 oe	2	A1	cao
						Total 5 marks