

# Silver Level

## Mark Scheme 2

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Silver
Booklet	Mark Scheme 2

**Time Allowed:** 56 minutes

**Score:** /46

**Percentage:** /100

**Grade Boundaries:**

9	8	7	6	5	4	3	2	1
>90%	80%	70%	60%	50%	40%	30%	20%	<20%

1.	$7 \times 3^2$	63	2	M1 for $3^2$ or 9 or $\frac{1}{9}$ or $(\frac{1}{3})^2$ A1
				<b>Total 2 marks</b>

2. (a)	Correct cancelling 8 & 4 or brackets	$2(x-3)$ oe	2	M1 A1
(b)		$(a+12)(a-12)$	2	B2 B1 for $(a\pm 12)(a\pm 12)$
(c)	$p+5r (=vq)$	$(p+5r)^2$ oe	2	M1 A1 do not isw (e.g. proceed onto $p^2+25r^2$ )
(d)	$4 = 5(y-4)$ oe $4+(5 \times 4) = 5y$	must be $5 \times 4$ or 20 or LHS = 24 4.8 oe	3	M1 or $(y-4)/4 = 1/5$ M1 $4/5 = y-4$ A1 dep on M2 correct answer only = M0M0A0
				<b>Total 9 marks</b>

3.	$\frac{AB}{\sin 28} = \frac{10.2}{\sin 134}$  $(AB =) \sin 28 \times \frac{10.2}{\sin 134}$	6.66	3	M1  M1 isolate AB correctly (14.17 or 14.18 or 14.2 for $\frac{10.2}{\sin 134}$ ) A1 (6.65695....) awrt 6.66
				<b>Total 3 marks</b>

4. (a)	Use of sine or $\frac{\sin x}{3.4} = \frac{\sin 90}{5.8}$  sin "x" = 3.4 / 5.8 (=0.586..)	35.9	3	M1 Sine must be selected for use.  M1 A1 (35.888...)Use isw on awrt 35.9
(b) (i)		5.85	1	B1 accept 5.849 rec
(ii)		5.75	1	B1
				<b>Total 5 marks</b>

5.	6/100 x 7500 (=450) {Ist Year} or 1.06 x 7500 (=7950) "450" + "477" + "505.62"	1432.62	3	M1 M2 for $1.06^3 \times 7500$ (=8932.62) M1 Calculating 6% of previous capital for another 2 years. A1 M1A0 for 1350 or 8850
				<b>Total 3 marks</b>

6.	$3y + 6x - 3 = x + 5y$ $5x - 3 = 2y$ oe	$(5x - 3)/2$	3	M1 Multiplying out brackets. M1 dep Correctly collecting like terms, (3 terms needed here). A1 oe
				<b>Total 3 marks</b>

7. (a)	6/9 x 12 oe	8	2	M1 e.g $12 \div 1.5$ A1
(b)	9/6 (or 12/"8") x 5	7.5	2	M1 A1 cao
(c)	$1.5^2 \times 32$ (=72) oe "72" - 32	40	3	M1 M1 for $1.5^2$ or $(2/3)^2$ M1 dep A1
				<b>Total 7 marks</b>

8. (a) (i)		41°		B1
(ii)		Angles in same segment (are equal)	2	B1 Accept "from same chord", "on same arc".
(b) (i)		75°		B1
(ii)		Angle at centre/middle is not 2 x angle at circumference / edge / perimeter / arc or Angle PQT ≠ QPT or PRS ≠ RSQ (oe) or 34 ≠ 41	2	B1 Accept $75 \neq 2 \times 41$ or $75 \neq 2 \times 34$  or using idea of isosceles triangles but must mention angles.
				<b>Total 4 marks</b>

9.	(a)	$1 + 7$ or 8		2	M1 8 may be denominator of fraction or coefficient in an equation such as $8x = 32$	SC If M0 A0, award B1 for 4 : 28
			28		A1 cao	
	(b)	$32 \times 45$ or 1440 or 14.4(0)m		3	M1	
		$\frac{"1440"}{72}$			M1 dep	
			20		A1 cao	
						<b>Total 5 marks</b>

10.	Fully correct factor tree or repeated division or 2, 2, 2, 5, 5 or $2 \times 2 \times 2 \times 5 \times 5$		3	M2 M1 for factor tree or repeated division with 2 and 5 as factors
		$2^3 \times 5^2$		A1 Also accept $2^3 \cdot 5^2$
				<b>Total 3 marks</b>

11.	$y^{3+n-1} = y^6$ oe or $y^{3+n} = y^7$ oe or $3 + n - 1 = 6$ oe or $y^n = \frac{y^7}{y^3}$ or $y^n = \frac{y^6}{y^2}$ or $y^n = y^4$		2	M1	SC if M0, award B1 for an answer of $y^4$
		4		A1 cao	
					<b>Total 2 marks</b>