Weekly check: Grade 8

Answers

GCSE Maths weekly check

All weekly checks online

Q	Answer	Marks
1	$x = 2, y = 4$ and $x = -2, y = -4$	4
2	$MN = (\frac{1}{2})(b - a) = (\frac{1}{2})AB$, so MN is parallel to AB	3
3	(180, -1)	2
4	$MN = \frac{1}{2}(b - a) = \frac{1}{2}AB$, so MN is a scalar multiple of AB and the lines are parallel	4
5	13	2
6	**a)** (90, -2) **b)** (120, 1)	2
7	$x = 3$	2
8	610	2
9	147 m	3
10	13 cm	2
11	$x^2 + y^2 = 64$	2
12	$f(2) = -3$ and $f(3) = 12$, a change of sign	2
13	$(9x + 3)/10$	2
14	**a)** -2 **b)** the temperature is falling at 2 °C per minute at t = 10	3
15	$x^2 - 6x + 9 = (x - 3)^2 = 0$ has the repeated root $x = 3$, so exactly one point of intersection, (3, 4)	4
16	Correct tan shape: branches through (0,0), (180,0), (360,0) with vertical asymptotes at $x = 90$ and $x = 270$	2
17	**a)** (3, -1) **b)** (5, -5)	2
18	**a)** $25 + 36 = 61$, so A lies on the circle **b)** No: $16 + 49 = 65$, which is not 61, so B does not lie on the circle	3
19	$\sqrt{6} \times \sqrt{6} = 6$, not 36. The denominator should be 6, giving $\frac{8\sqrt{6}}{6} = \frac{4\sqrt{6}}{3}$.	2
20	$4\sqrt{3}$	2

Full worked solutions, written out by hand, are on the solutions sheet for this sheet.