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Edexcel-style GCSE (9–1) Mathematics practice paper

Paper 2 (Calculator)

Higher tier

Surname	
Other names	
Centre number	Candidate number

Time allowed	1 hour 30 minutes
Total marks	80
Materials	pen, pencil, ruler, protractor and compasses, a scientific calculator. A formulae sheet is supplied at the end of this paper.
Calculator	You may use a calculator.

Instructions

• Use black ink or a ball-point pen.
• Answer all questions. Write your answers in the spaces provided; there may be more space than you need.
• You must show all your working out with your answer clearly identified at the end of your solution.
• Diagrams are NOT accurately drawn unless a question says so.

Information

• The total mark for this paper is 80.
• The marks for each question are shown in brackets, for example (2). Use this as a guide to how long to spend on the question.

Advice

• Read each question carefully before you start to answer it. Keep an eye on the time and try to answer every question. Check your answers if you have time at the end.

This is a JRA Tutors practice paper written in the style of the Pearson Edexcel GCSE Mathematics papers. It is not an official past paper, a prediction of the real 2027 paper, or produced or endorsed by Pearson.

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9 x : y = 5 : 6. Write y in terms of x. **(3)**

Answer _____

(Total for Question 9 is 3 marks)

10 Two angles in the same segment stand on the same arc. One is 30°. Work out the other. **(3)**

Answer _____

(Total for Question 10 is 3 marks)

11 Make x the subject of y = 9(x − 3). **(3)**

Answer _____

(Total for Question 11 is 3 marks)

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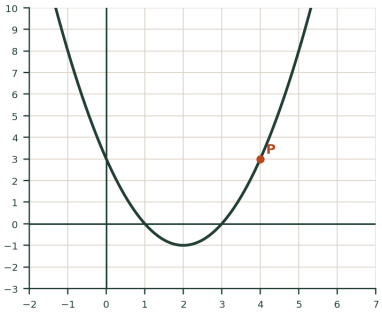
19 The graph of $y = f(x)$ is shown. The point P(4, 3) lies on the graph. Write down the image of P on $y = -f(x - 2)$. **(5)**



Answer _____

(Total for Question 19 is 5 marks)

20 The nth term of a sequence is $5n^2 - 3n + 6$. Show that the second difference is 10. **(5)**

Answer _____

(Total for Question 20 is 5 marks)

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Mark scheme

Edexcel-style Practice Paper 2 · Higher

Award marks for correct answers. Where a question asks for working, award method marks for a correct method even if the final answer is wrong. Accept equivalent forms of the answer. Marks are shown per part; the total is 80.

Q	Answer	Marks	Working / guidance
1	**3/4**	1	1 − P(rain)
2	**negative correlation**	2	As x increases, y decreases.
3	**125 cm³**	2	5^3
4	**x = 5**	2	Use inverse operations on both sides.
5	**8**	2	List the factors or use prime factors: HCF = 8
6	**8.25 ≤ x < 8.35**	3	Half of 0.1 is 0.05.
7	**4/9**	3	Multiply along the branches and add the relevant outcomes.
8	**130° (corresponding)**	3	Use the parallel-line rules.
9	**y = 6/5x**	3	y/x = 6/5
10	**30°**	3	Angles in the same segment are equal.
11	**x = y/9 + 3**	3	Undo each operation step by step.
12	**5**	4	$\sqrt[3]{(125)}$
13(a)	**x < 2**	2	The region is to the left of the line.
13(b)	**y > 5**	2	The region is above the line.
14	**2/11**	4	Let x = 0.1818...; 100x − x = 18, so 99x = 18.
15	**£13279**	4	£15000 × 0.97^4
16	**(5x + 6)/(x − 4)**	5	Swap x and y, then make y the subject
17	**50.5°**	5	cos x = 7 ÷ 11.0
18	**2√10/9**	5	Common denominator (1+√10)(1−√10) = −9; numerator = (1−√10) − (1+√10) = −2√10; so the answer is −2√10/(−9) = 2√10/9
19	**(6, −3)**	5	Right k, then reflect in the x-axis.
20	**See working**	5	nt(n+2) − 2nt(n+1) + nt(n) = 10
21(a)	**16 m**	3	area of the triangle = ½ × 4 × 8
21(b)	**90 m**	3	6 × 15
22	**9**	6	Form and solve the quadratic; reject any negative solution

Mark record Total: _____ / 80 Paper position: Foundation = grades 1–5, Higher = grades 4–9. Grade boundaries change every year, so use this paper to find weak topics, not to predict a grade.

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