

# Pearson Edexcel A Level Mathematics 9MA0

## Statistics – Normal Distribution

Time allowed: 45 minutes

School: [www.CasperYC.club](http://www.CasperYC.club)

Name:

Teacher:

How I can achieve better:

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Question	Points	Score
1	4	
2	4	
3	6	
4	12	
5	13	
6	8	
7	3	
Total:	50	

Last updated: January 11, 2026







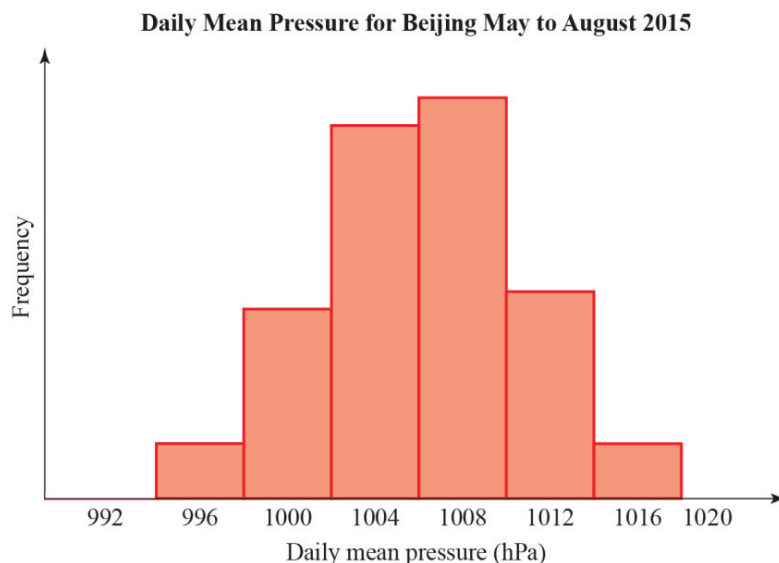








6. The summary statistics and histogram are an extract from statistical software output for the distribution of the daily mean pressure for Beijing, May to August (inclusive) 2015.



Variable	$N$	Mean	Standard deviation	Q1	Q2	Q3
Daily Mean Pressure	123	1006	4.4	1003	1006	1010

(a) Explain why it is reasonable to model the daily mean pressure for Beijing, during May to August using a normal distribution. [1]

The distribution for the daily mean pressure for Beijing, May to August 2015,  $X$ , can be modelled by a normal distribution.

Daily mean pressure (hPa)	Suggests
Above 1013	Good weather
Between 1013 and 1000	Fair weather
Less than 1000	Poor or bad weather
Less than 980	Hurricane

(b) Based on the statistical output and the information in the table above, what is the chance of poor or bad weather in Beijing during May to August [2]

(c) Although very unlikely, based on the model in part (a), give a reason why we cannot say there is no chance of a hurricane in Beijing during May to August. [1]





