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| **Topic 4: Statistics and Probability** | **Normal Distribution, Z-scores, Percentiles** | |
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| 1. The weights, , of freshly picked cantaloupes in California are normally distributed with a mean and a standard deviation . A cantaloupe is considered too small if it weighs less than .     1. Given that of freshly picked cantaloupes are too small at harvest, find .    2. A cantaloupe is too small. Find the probability that it weighs at least . | | (3 marks)   (3 marks) |
| Mark scheme:   1. Valid approach   , | | (M1)  (A2)   (A1)  (M1)  (A1) |