

**MARKS**

6

8. Suppose that the diameters in millimetres of the eggs laid by a large flock of hens can be modelled by a normal distribution with a mean of 41 mm and a standard deviation of 3 mm. The selling price per dozen is \$1.10 for eggs less than 37 mm in diameter, \$1.50 for those with diameters greater than 43 mm, and \$1.28 for the remainder. What is the average selling price **per egg** produced by the flock?

Average price per egg