







Name:	Date:
<p>Question 1:</p> <p>Calculate the area of the major sector below with radius 42 metres.</p> 	 E+F 1·4b Bronze Outcome 2
<p>Question 2:</p> <p>Solve <b>algebraically</b> the system of equations;</p> $\begin{aligned} 10x + 3y &= 9 \\ 5x + 2y &= 1 \end{aligned}$	 REL 1·1d Gold Outcome 1
<p>Question 3:</p> <p>Multiply out the following brackets and collect like terms;</p> $(x - 9)(x^2 + 6x + 8)$	 E+F 1·2a Silver Outcome 3
<p>Question 4:</p> <p>Write the following in it's simplest index form.</p> $\frac{3k^4 \times 6k^8}{2k^3}$	 E+F 1·1b Silver Outcome 1
<p>Question 5:</p> <p>Solve the following inequality;</p> $7 - 10n \leq -23$	 REL 1·1c Silver Outcome 2
My score:	

# Exam Questions



## Question 1:

This year, Ben paid £260 for his car insurance.



This is an increase of 30% on last year's payment.

How much did Ben pay last year? **3**



APP 1.3a Bronze Outcome 1

## Question 2:

Change the subject of the formula

$$p = q + 2r^2 \quad \text{to } r. \quad \mathbf{3}$$



REL 1.1e Silver Outcome 2

## Question 3:

(a) The price, in pence, of a carton of milk in six different supermarkets is shown below.

66 70 89 75 79 59



Use an appropriate formula to calculate the mean and standard deviation of these prices.

**Show clearly all your working.**

**4**

(b) In six local shops, the mean price of a carton of milk is 73 pence with a standard deviation of 17.7.

Compare the supermarket prices with those of the local shops.

**2**



APP 1.4 Silver Outcome 2

## Question 4:

Use an appropriate formula to solve the quadratic equation

$$3x^2 - 2x - 6 = 0.$$

Give your answer correct to 1 decimal place.

**4**



REL 1.3a Gold Outcome 3

## Question 5:

Express  $\frac{7}{\sqrt{2}}$  as a fraction with a rational denominator.

**2**



E+F 1.1a Bronze Outcome 2

**My score:**