| Name:   | Date:                     |
|---|---------------------------|
| Question 1:  For this cuboid, calculate the length of the space diagonal.   | REL 1.4a Silver Outcome 1 |
| Question 2: $ A \ \ \text{function is given as} \ g(t) = 2t + 11. $   | REL 1·1b Bronze Outcome 2 |
| For what value of $t$ is $g(t) = 3$ ?   |                           |
| Question 3:<br>Express $x^2 - 14x + 50$ in the form $(x+a)^2 + b$ .   | E+F 1·2c Bronze Outcome 1 |
| Question 4:  A car is sold for £12 000.  The value of the car depreciates at a rate of 20% for the first year and 11% in the second year.  Calculate the value of the car | APP 1·3a Gold Outcome 3   |
| after 2 years.  Question 5:  Write down the gradient and the y-intercept of the straight line with the following equation; $5x + 4y = 20$                                 | REL 1·1a Gold Outcome 1   |
| My score:   |                           |

## Exam Questions 12 2 2 2



Question 1:



REL 1.5b Silver Outcome 1

Solve the equation

$$4\tan x^{\circ} + 5 = 0,$$

$$0 \le x \le 360$$
.

Question 2:



REL 1.1c Silver Outcome 2

Solve, algebraically, the inequality

$$19 + x > 15 + 3(x-2)$$
.



REL 1.1d Gold Outcome 1

Question 3:

Solve algebraically the system of equations

$$2x - y = 10$$

$$4x + 5y = 6$$
. 3

Question 4:





REL 1.3a Silver Outcome 3

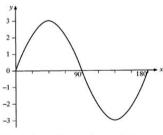
giving the roots correct to one decimal place.

## Question 5:



REL 1.5a Silver Outcome 1

Part of the graph of  $y = a \sin bx^{\circ}$  is shown in the diagram.



State the values of a and b.

