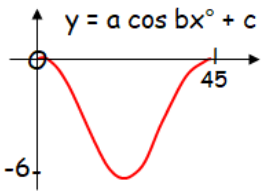
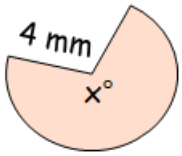
Name:	Date:
Question 1: Express $x^2 - 10x + 23$ in the form $(x + a)^2 + b$.	E+F 1·2c Bronze Outcome 1
Question 2: A function is given as $f(x) = 4x + 9$. For what value of x is $f(x) = -15$?	REL 1·1b Bronze Outcome 2
Question 3: Solve the quadratic equation below. $2x^2 + 5x + 2 = 0$	REL 1·3a Gold Outcome 2
Question 4: For the following trigonometric graph, write down the values of a, b and c. 	REL 1·5a Silver Outcome 1
Question 5: The area of this sector is 42·84 mm².  What is the size of the angle in the centre? 	E+F 1·4b Gold Outcome 2
My score:	

Exam Questions

Question 1:

APP 1·3a Bronze Outcome 2

Beth normally cycles a total distance of 56 miles per week.

She increases her distance by 15% each week for the next three weeks.

How many miles will she cycle in the third week? **3**

Question 2:

REL 1·1d Gold Outcome 1

A straight line has equation $y = mx + c$, where m and c are constants.

(*a*) The point (2, 7) lies on this line.

Write down an equation in m and c to illustrate this information. **1**

(*b*) A second point (4, 17) also lies on this line.

Write down another equation in m and c to illustrate this information. **1**

(*c*) Hence calculate the values of m and c. **3**

(*d*) Write down the gradient of this line. **1**

Question 3:

APP 1·4 Silver Outcome 2

The heights, in centimetres, of seven netball players are given below.

173 176 168 166 170 180 171

For this sample, calculate:

(*a*) the mean; **1**

(*b*) the standard deviation. **3**

Show clearly all your working.

Question 4:

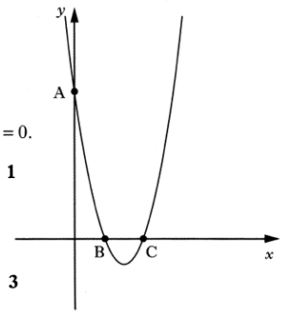
REL 1·3a Bronze Outcome 2

REL 1·2 Bronze Outcome 3

The equation $x^2 - 6x + 8 = 0$ can also be written as $(x - 2)(x - 4) = 0$.

(*a*) Write down the roots of the equation $x^2 - 6x + 8 = 0$. **1**

Part of the graph of $y = x^2 - 6x + 8$ is shown.



(*b*) State the coordinates of the points A, B and C. **3**

(*c*) What is the equation of the axis of symmetry of this graph? **1**

Question 5:

REL 1·5a Bronze Outcome 1

Solve the equation

$5 \tan x° - 6 = 2, \quad 0 \leq x < 360.$ **3**

My score: