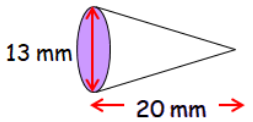
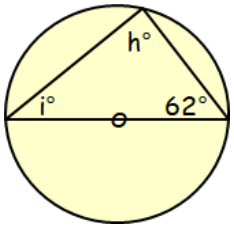
Name:	Date:
Question 1: Calculate the volume of this cone;  	E+F 1·4c Silver Outcome 2
Question 2: Multiply out the following brackets and collect like terms; $(3x-4)(x^2-8x-9)$	E+F 1·2a Bronze Outcome 3
Question 3: Evaluate; $125^{\frac{2}{3}}$	E+F 1·1b Gold Outcome 2
Question 4: Calculate the value of the missing angles in the circle below.  	REL 1·4a Silver Outcome 1
Question 5: Solve the following equation; $5x-4=\frac{7x+1}{2}$	REL 1·1c Gold Outcome 1
My score:	

Exam Questions

Question 1:

APP 1·3a Silver Outcome 2

It is estimated that house prices will increase at the rate of 3·15% per annum.

A house is valued at £134 750. If its value increases at the predicted rate, calculate its value after 3 years.

Give your answer correct to **four** significant figures. **4**

Question 2:

REL 1·1d Gold Outcome 1

Alan is taking part in a quiz. He is awarded x points for each correct answer and y points for each wrong answer. During the quiz, Alan gets 24 questions correct and 6 wrong.

He scores 60 points.

(*a*) Write down an equation in x and y which satisfies the above condition. **1**

Helen also takes part in the quiz. She gets 20 questions correct and 10 wrong. She scores 40 points.

(*b*) Write down a second equation in x and y which satisfies this condition. **1**

(*c*) Calculate the score for David who gets 17 correct and 13 wrong. **4**

Question 3:

APP 1·4 Silver Outcome 2

The heights, in millimetres, of six seedlings are given below.

15 18 14 17 16 19

(*a*) Calculate:

(i) the mean; (ii) the standard deviation; **1**

of these heights. **3**

Show clearly all your working.

(*b*) Later the same six seedlings are measured again. **Each** has grown by 4 millimetres.

State:

(i) the mean; (ii) the standard deviation; **1**

of the new heights. **1**

Question 4:

E+F 1·3a Gold Outcome 3

Solve the equation

$$2x^2 + 3x - 1 = 0,$$

giving your answers correct to one decimal place. **4**

Question 5:

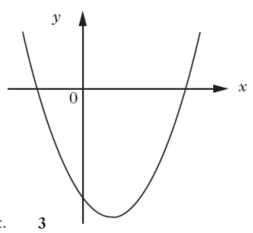
REL 1·2 Gold Outcome 3

(*a*) Factorise $x^2 - 4x - 21$. **2**

(*b*) Hence write down the roots of the equation

$$x^2 - 4x - 21 = 0.$$ **1**

(*c*) The graph of $y = x^2 - 4x - 21$ is shown in the diagram.



Find the coordinates of the turning point. **3**

My score: