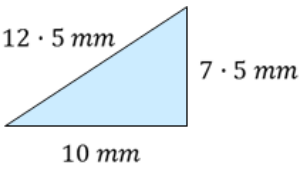
Name:	Date:
Question 1:   A tin of soup is on special offer and contains 480 grams. This is 20% more than the standard tin. How much does the standard tin hold?	APP 1·3a Bronze Outcome 1
Question 2: Multiply out the following brackets and collect like terms; $(2x-3)(x^2+4x-5)$	E+F 1·2a Gold Outcome 3
Question 3: Solve **algebraically** the system of equations; $5x+2y=9$ $4x+3y=3$	REL 1·1d Gold Outcome 1
Question 4: Evaluate; $81^{\frac{3}{4}}$	E+F 1·1b Gold Outcome 2
Question 5: Use the converse of Pythagoras to determine whether or not the following triangle is right-angled.  	REL 1·4a Bronze Outcome 1
My score:	

Exam Questions

Question 1:

REL 1·1e Silver Outcome 2

A formula used to calculate the flow of water in a pipe is $f = \frac{kd^2}{20}$.

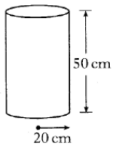
Change the subject of the formula to d.

3

Question 2:

E+F 1·4c Bronze Outcome 1
E+F 1·4c Gold Outcome 2

A drinks container is in the shape of a cylinder with radius 20 centimetres and height 50 centimetres.



(a) Calculate the volume of the drinks container.
Give your answer in cubic centimetres, correct to two significant figures.

3

(b) Liquid from the full container can fill 800 cups, in the shape of cones, each of radius 3 centimetres.

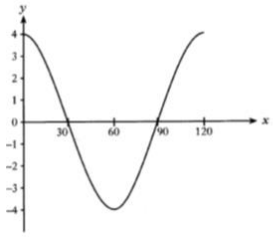
What will be the height of liquid in each cup?

4

Question 3:

REL 1·5a Silver Outcome 1

Part of the graph of $y = b\cos ax°$ is shown in the diagram.



State the values of a and b 2

Question 4:

You're on your own!

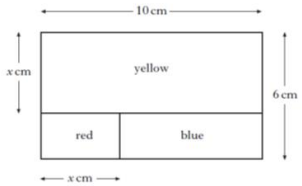
A straight line has equation $3y = 12 - 4x$.

Find the coordinates of the point where it crosses the x-axis. 2

Question 5:

REL 1·3a Silver Outcome 2

(a) A decorator's logo is rectangular and measures 10 centimetres by 6 centimetres.
It consists of three rectangles: one red, one yellow and one blue.



The yellow rectangle measures 10 centimetres by x centimetres.
The width of the red rectangle is x centimetres.
Show that the area, A, of the blue rectangle is given by the expression

$$A = x^2 - 16x + 60.$$

2

(b) The area of the blue rectangle is equal to $\frac{1}{5}$ of the total area of the logo.
Calculate the value of x.

4

My score: