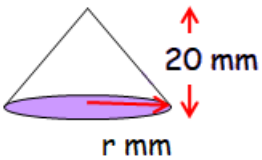
Name:	Date:
Question 1: Solve **algebraically** the system of equations; $5x + 4y = 23$ $2x + 3y = 5$	REL 1·1d Gold Outcome 1
Question 2: Multiply out the following brackets and collect like terms; $(3x - 2)(x^2 - 4x + 5)$	E+F 1·2a Gold Outcome 3
Question 3: The cost of petrol is £1·90 per litre. The value of petrol is expected to rise at the rate of 1% next year and 2% in the following year. Calculate the expected value of petrol after 2 years.	APP 1·3a Gold Outcome 2
Question 4: This cone has a volume of 5358·93 mm³.  Calculate it's radius.	E+F 1·4c Gold Outcome 2
Question 5: Solve the following inequality; $3x - 1 > \frac{4x - 13}{3}$	REL 1·1c Gold Outcome 2
My score:	

Exam Questions

Question 1:

REL 1·1e Silver Outcome 1

Change the subject of the formula to m.

$$L = \frac{\sqrt{m}}{k}$$ 2

Question 2:

E+F 1·1a Gold Outcome 1

Simplify $\sqrt{2}\left(\sqrt{3}+\sqrt{2}\right)-\sqrt{6}$. 2

Question 3:

REL 1·4 Silver Outcome 2

A rugby team scored the following points in a series of matches.

13 7 0 9 7 8 5

(a) For this sample, calculate:

(i) the mean; 1

(ii) the standard deviation. 3

Show clearly all your working.

The following season, the team appoints a new coach.

A similar series of matches produces a mean of 27 and a standard deviation of 3·25.

(b) Make two valid comparisons about the performance of the team under the new coach. 2

Question 4:

E+F 1·1b Gold Outcome 2

Evaluate $9^{\frac{3}{2}}$. 2

Question 5:

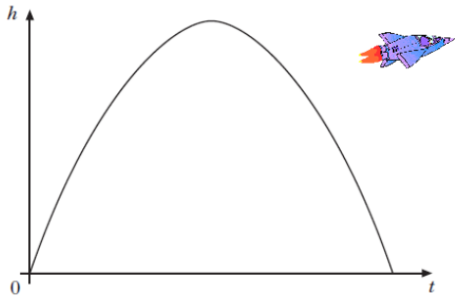
REL 1·3a Bronze Outcome 2

REL 1·2 Gold Outcome 3

The diagram below shows the path of a rocket which is fired into the air.

The height, h metres, of the rocket after t seconds is given by

$$h(t) = -2t(t-14).$$



(a) For how many seconds is the rocket in flight? 2

(b) What is the maximum height reached by the rocket? 2

My score: