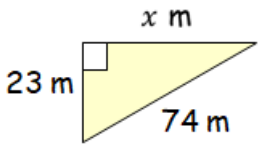
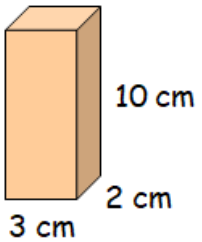
Name:	Date:
1 Find the 'nth' term for the following sequence and hence find the 10th term; 7, 11, 15, ...	MTH 413a Silver Outcome 1
2 Calculate the length of the side marked x in the triangle below.  	MTH 416a Silver Outcome 1
3 Calculate $57 - (3 + 4)^2$	MTH 403c Gold Outcome 1
4 A new car weighs 3984 lbs. How much is this weight in grams? 	MNU 411a Silver Outcome 3
5 Calculate the surface area of this cuboid.  	MTH 411b Silver Outcome 1
My score:	

Unit	Abbrev.	Metric
ounce	oz	28·35 g
pound	lb	453·59 g
stone	st	6·35 kg

Exam Questions

Question 1:

MNU 410a Bronze Outcome 1

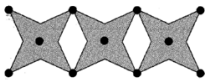
In the Annual Fun Run, Lucy ran 12 kilometres in 1 hour 15 minutes.

Calculate her average speed in kilometres per hour. **3**

Question 2:

MTH 413a Bronze Outcome 1

Jenni is making a wallpaper border.
She is using stars and dots to make the border.



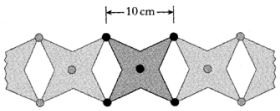
(*a*) Complete the table below.

Number of stars (s)	1	2	3	4	5
Number of dots (d)			11		

2

(*b*) Write down a formula for calculating the number of dots (d), when you know the number of stars (s). **2**

(*c*) Each star is 10 centimetres long.



The wallpaper border Jenni makes is 300 centimetres long.

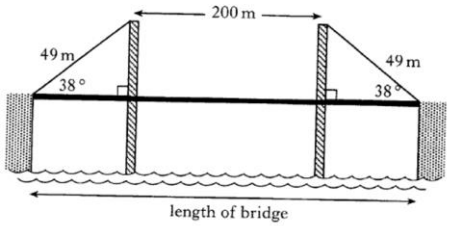
(i) How many stars does Jenni need? **1**

(ii) How many dots does she need? **2**

Question 3:

MTH 416a Bronze Outcome 2

The towers of a bridge are 200 metres apart.
Steel cables of length 49 metres are used to support the bridge at both ends.
The cables make an angle of 38° with the bridge.



Find the total length of the bridge. **4**

Question 4:

MTH 415a Bronze Outcome 1

Solve algebraically the inequality

$$\frac{1}{4}n - 2 < 10.$$ **2**

Question 5:

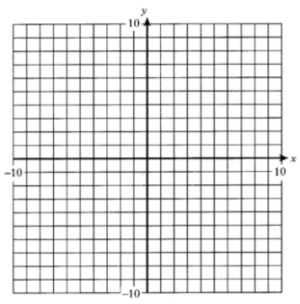
MTH 413d Silver Outcome 1

(*a*) Complete the table below for $y = 2x - 5$.

x	-1	0	4
y			

2

(*b*) Using the table in part (*a*), draw the graph of $y = 2x - 5$ on the grid. **2**



My score: