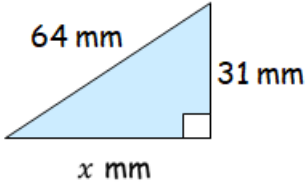

















Name:	Date:
<p><b>1</b> Calculate the length of the side marked <math>x</math> in the triangle below.</p> 	<p> MTH 416a Silver Outcome 1</p> 
<p><b>2</b> A cruise ship travels 282 miles over a time period of 9 hours and 24 minutes.</p>  <p>What was its average speed?</p>	<p> MNU 410a Silver Outcome 3</p> 
<p><b>3</b> Share €630 in the ratio of 2 : 7.</p> 	<p> MNU 408a Bronze Outcome 2</p>
<p><b>4</b> Rachael scored 79 out of 110 in a recent French test.</p> <p>What was her percentage? Round your answer to the nearest percent!</p> 	<p> MNU 407a Bronze Outcome 3</p> 
<p><b>5</b> Driver 1 has won 7 of his last 18 races. Driver 2 has won 9 of his last 24 races.</p> <p>Statistically, who is more likely to win the next race?</p> <p>You <b>MUST</b> give a reason for your answer!</p> 	<p> MNU 422a Gold Outcome 1</p> 
My score:	



# Exam Questions

## Question 1:

Solve algebraically the inequality

$$4p + 3 < 27.$$

2



MTH 415a Bronze Outcome 2

## Question 2:

Multiply out the brackets and simplify

$$2(4 - t) + 5t.$$

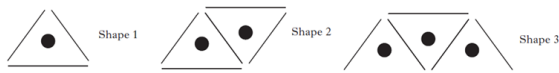
2



MTH 414a Silver Outcome 1

## Question 3:

A wallpaper pattern consists of lines and dots.



(a) Complete the table below.

2

Number of dots ( $D$ )	1	2	3	4	5		14
Number of lines ( $L$ )	3	5					

(b) Write down a formula for calculating the number of lines ( $L$ ) when you know the number of dots ( $D$ ).

2

(c) A pattern has been made using 77 lines.

How many dots are in the pattern?

2



MTH 413a Bronze Outcome 1

## Question 4:

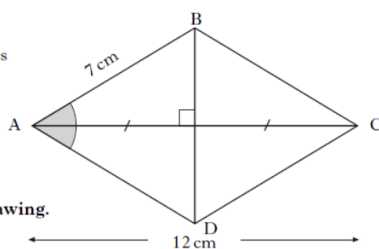
ABCD is a rhombus.

Side AB is 7 centimetres and diagonal AC is 12 centimetres as shown.

Calculate the size of the shaded angle BAD.

Do not use a scale drawing.

4



MTH 416a Silver Outcome 2



## Question 5:

Factorise

$$6n + 30.$$

2



MTH 414b Bronze Outcome 1

My score: