

# ELGIN ACADEMY

*Prelim Examination 2006 / 2007*

## MATHEMATICS

### Standard Grade - Foundation Level

### Paper I

**Time Allowed - 20 minutes**

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First name and initials

Surname

Class

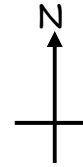
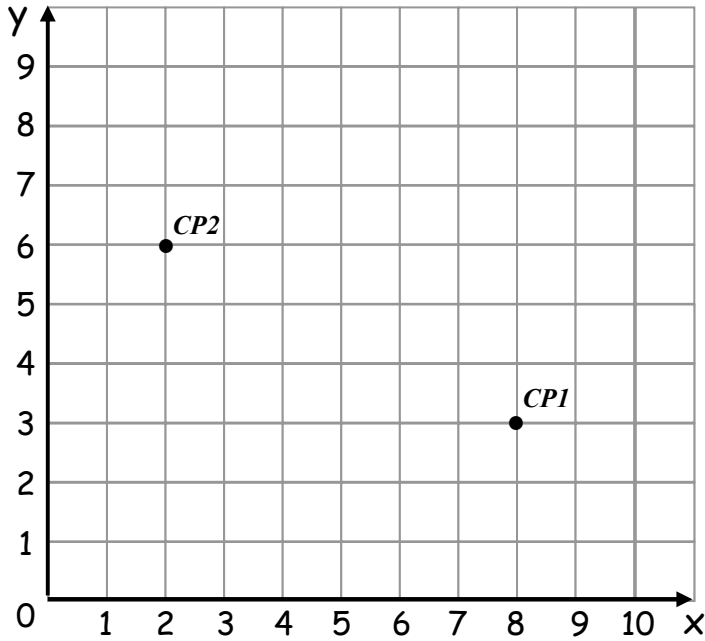
Teacher

Read Carefully

1. Answer as many questions as you can.
2. Write your answers in the spaces provided.
3. Full credit will be given only where the solution contains appropriate working.
4. **You may not use a calculator**



5.



Each box on the diagram represents a square of side 25 m.

On a beginner's Orienteering course Tammy started out from checkpoint 1 (*CP1*), which had coordinates (8, 3), as shown on the diagram above.

The first part of the course took her to checkpoint 2 (*CP2*).

(a) Write down the coordinates of checkpoint 2.

(1)

Checkpoint 3 (*CP3*) is 50 metres to the North of checkpoint 2 (*CP2*)

(b) Mark the position of checkpoint 3 on the diagram.

(1)

Checkpoint 4 is at the point (0, 6).

(c) In which direction must Tammy run from checkpoint 3 in order to get to checkpoint 4 in one straight line.

(1)

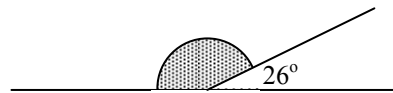
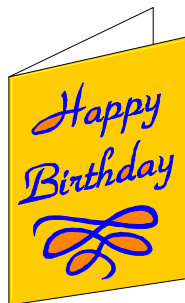
6. At the beginning of 2006 there was a superstar contest in which the 3 finalists were Andy, Richard and Lucy. Richard came first, Andy was in second place and Lucy came third. This result is shown in the table below:

| First   | Second | Third |
|---------|--------|-------|
| Richard | Andy   | Lucy  |
|         |        |       |
|         |        |       |
|         |        |       |
|         |        |       |
|         |        |       |

Complete the table to show all the other ways in which the three finalists could have finished.

(3)

7. A musical birthday card must be fully open before the music can be heard. Andy has opened his card to an angle of  $26^\circ$ .



Through how many more degrees must the card be opened before the music can be heard?

(2)

8. For every pound (£) spent in a store customers are given 8 points which they can save up and swap for goods in the store.

Last week Heather spent £12 and received 96 points. ( $12 \times 8$ )

- (a) How many points would Pauline receive if she spent £57?

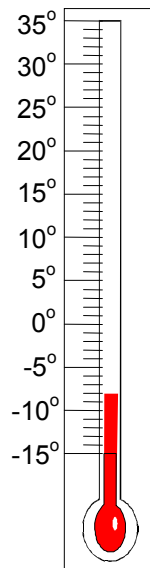
(2)

Gavin was saving points to get a DVD which needed 3600 points.

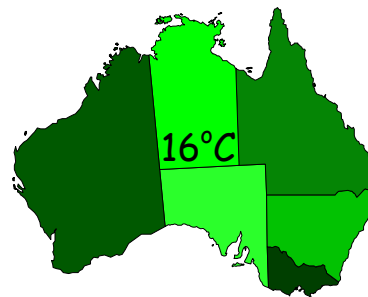
- (b) How much would Gavin have to spend altogether in order to save up the number of points needed to get his DVD?

(2)

9. The thermometer and map below show the temperature in Canada and Australia at midday on a particular day.



CANADA



AUSTRALIA

How many degrees colder than Australia is Canada?

(2)